1080P Digital Video Recorder

Safety Information

Before You Begin

Read these instructions before installing or operating this product.
Note: This installation should be made by a qualified service person and should conform to local codes.
This manual provides installation and operation information. To use this document, you must have the following minimum qualifications:

- A basic knowledge of CCTV systems and components
- A basic knowledge of electrical wiring and low-voltage electrical connections

Intended use

Only use this product for its designated purpose; refer to the product specification and you documentation.
Customer Support
For assistance in installing, operating, maintaining and troubleshooting this product refer to this document and any other documentation provided. If you still have questions, please contact Norbain Technical Support and Sales:

Norbain SD, 210 Wharfedale Road, IQ Winnersh, Wokingham, Berkshire RG41 5TP, England.

UK +44 (0) 118 912 5000

Note: You should be at the equipment and ready with details before calling Technical Support.

Conventions Used in this Manual

Boldface or button icons highlight command entries. The following warning, CAUTION and Note statements identify potential hazards that can occur if the equipment is not handled properly:

*** Warning:**
Improper use of this equipment can cause severe bodily injury or equipment damage.

**** Caution:**
Improper use of this equipment can cause equipment damage.
Note: Notes contain important information about a product or procedure.

This apparatus is manufactured to comply with the radio interference.
A Declaration of Conformity in accordance with the following EU standards has been made. The manufacturer declares that the product supplied with this document is compliant the provisions of the EMC Directive 2004/108/EC, the CE Marking Directive 93/68 EEC and all associated amendments.
All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive: 2011/65/EU, which means our manufacture processes and products are strictly "lead-free" and without the hazardous substances cited in the directive.

The crossed-out wheeled bin mark symbolizes that within the European Union the product must be collected separately at the product end-of-life. This applies to your product and any peripherals marked with this symbol. Do not dispose of these products as unsorted municipal waste.

* This symbol indicates electrical warnings and cautions.
** This symbol indicates general warnings and cautions.

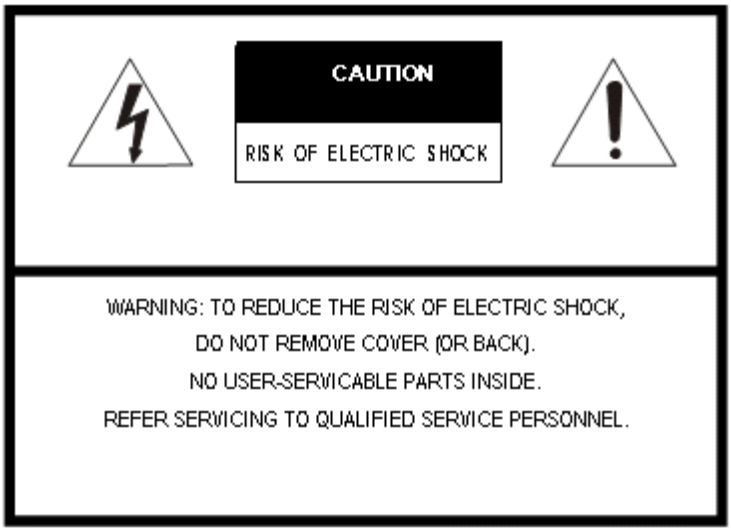
NORBAIN SD reserves the right to make changes to the product and specification of the product from time to time without prior notice.

WARNINGS AND CAUTIONS:

To reduce the risk of fire or electric shock, do not insert any metallic objects through the ventilation grills or other openings on the equipment.

CE COMPLIANCE STATEMENT
WARNING

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures."


CAUTION
RISK OF ELECTRIC SHOCK
WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

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Chapter 1

DVR USER MANUAL

1 GETTING STARTED

1.1 Checking Supplied Items

Make sure that you have the following items supplied with your DVR. If any of these items are missing or damaged, notify your vendor immediately. Keep the packing utilities for moving or storage purposes afterwards.

Items	Photo	Quantity
Quick Start Guide		1 Set
CD (Manual & Software)		1 Set
12V DC Adaptor Power Cable		1 Set
USB Mouse		1 Set
Screws		1 Set

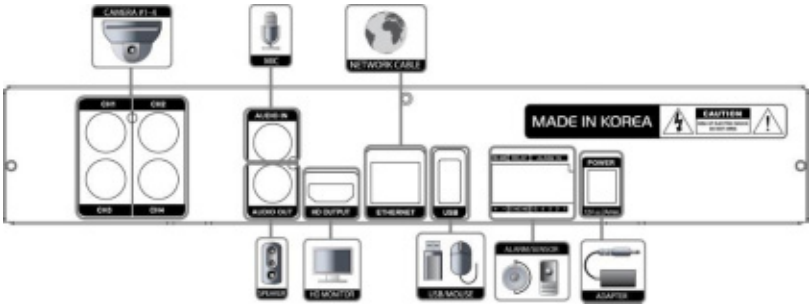
1.2 Connecting Peripheral Device

This section describes how to connect peripheral devices efficiently to the DVR.

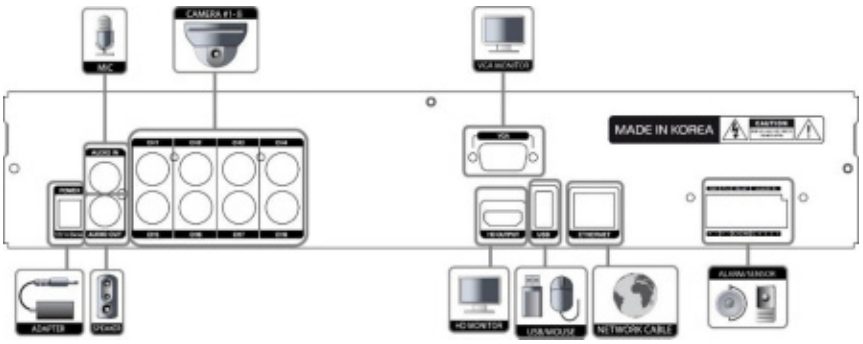
Install the DVR on flat surface. If required, attach a rubber mount for installation. If a 19-inch rack is used with 1.5U Height case, it is recommend to install the system on a shelf and use 2.5~3U (1U=1.75 inch or 4.45 cm) space for proper ventilation.

NOTE Install the system in a location with good ventilation to prevent overheating.

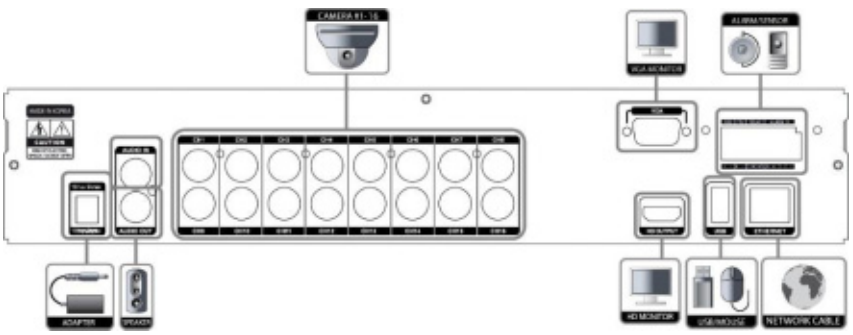
4ch (1U Case 1 HDD) Dimensions: 11.0" W x 1.9" H x 9.6" D



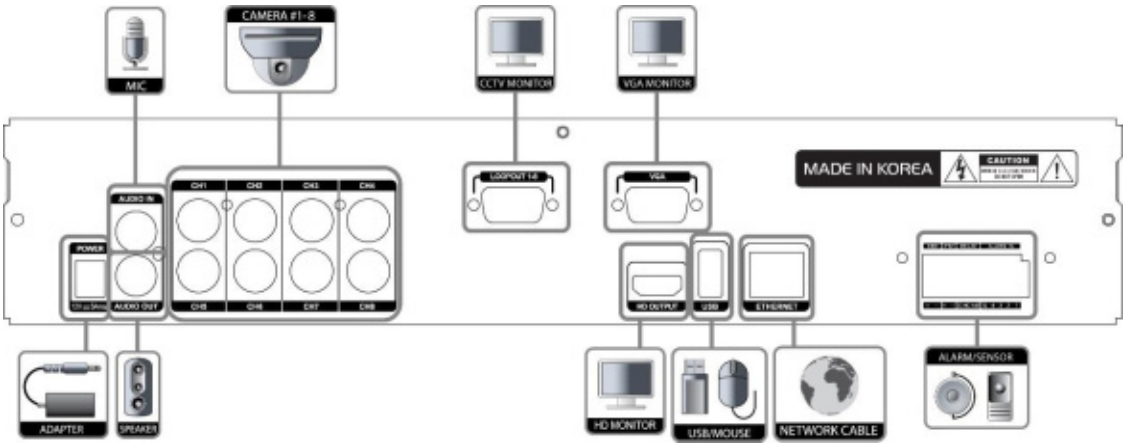
8ch (1U Case 1 HDD) Dimensions: 11.0" W x 1.9" H x 9.6" D



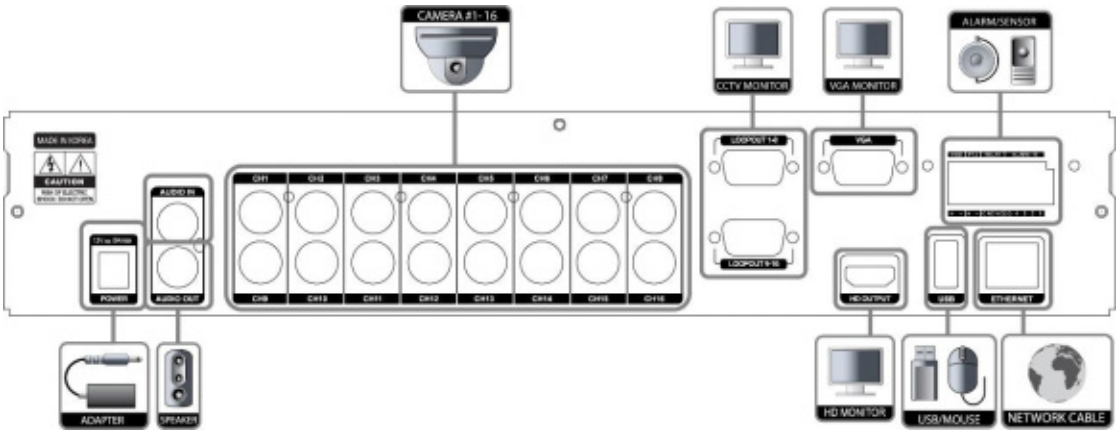
16ch (1.5U Case 2 HDD) Dimensions: 14.1" W x 2.6" H x 14" D



8ch(Loop out) Dimensions: 14.1″ W x 2.6″ H x 14″ D



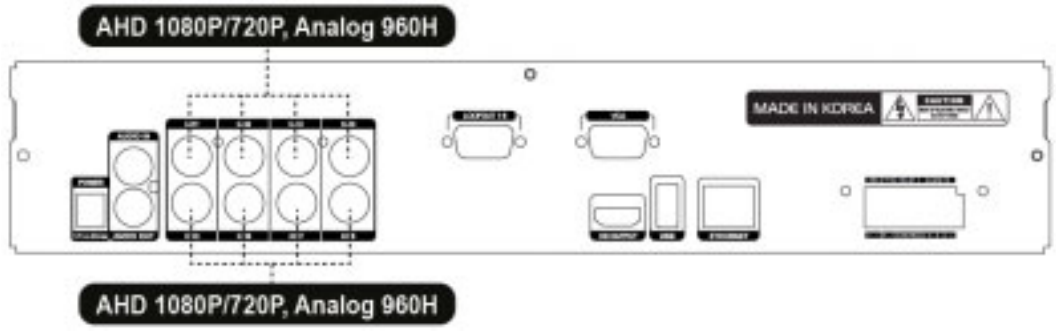
16ch(Loop out) Dimensions: 14.1″ W x 2.6″ H x 14″ D



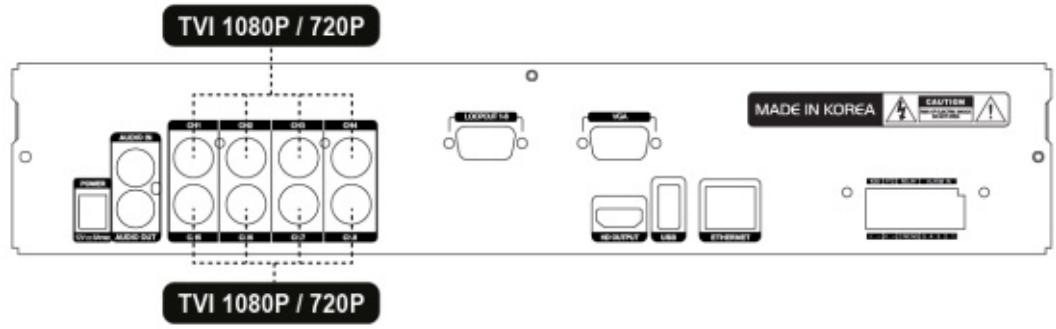
WARNING !	※When connecting power cord to the system, it is strongly recommended first to plug the power cord to the system and then plug the other side of power cord into the wall socket.

CAMERA CONNECTION

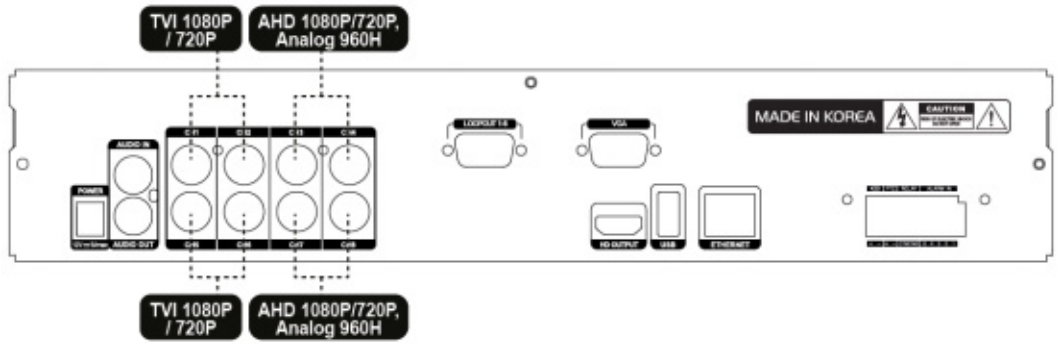
Example 1) All AHD 1080P/720P or Analog 960H



Example 2) All TVI 1080P/720P



Example 3) CH 1, CH 2 : TVI 1080P/720P
CH 3, CH 4 : AHD 1080P/720P or Analog 960H
CH 5, CH 6 : TVI 1080P/720P
CH 7, CH 8 : AHD 1080P/720P or Analog 960H



NOTE TVI only Type - Please refer to the example 1)
AHD only Type - Please refer to the example 2)
HYBRID Type - Please refer to the example 3)
In order to set TVI & AHD camera at the same time, the channel combination must be 2 pairs. (1,2CH +3,4CH +5,6CH +7,8CH…)

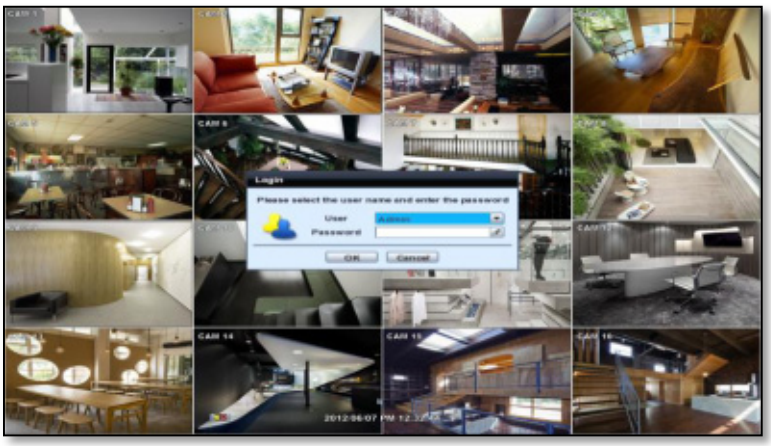
1.3 System Startup and Shutdown

1.3.1 System Startup

After connecting peripheral devices such as cameras, monitors and a mouse to the DVR, power up the DVR by connecting DC12V 3A adaptor to the power jack on the rear panel. The boot log will display as shown below. Please wait until the boot process completes.

Login with 'User Name' at the login window which will appear as shown below.

There is only one Administrator Account configurable in the DVR system. It is assigned with an unchangeable User ID marked as 'admin'. The default password is empty (No Password). Administrator account has full access to the DVR and its configurable parameters. The Administrator Account also has the ability to create new users and to assign rights to the new user accounts. Those new users created by 'admin' account can also login with a specific password set by 'admin' account.



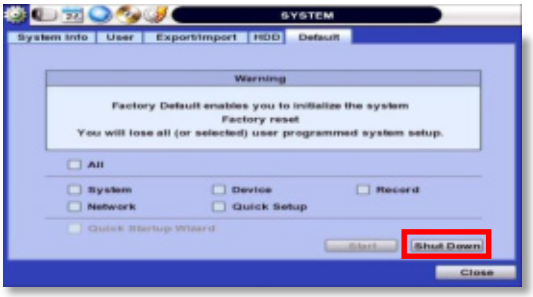
NOTE Do not forget the administrator's password that was set for the first time. In case the password is lost, contact your vendor.

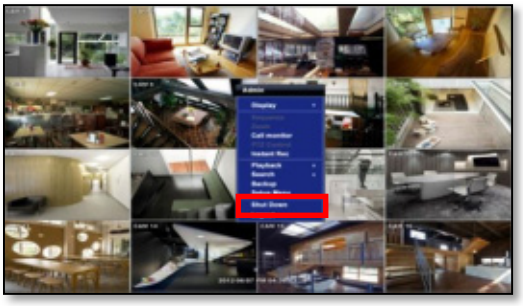
NOTE The mouse is included. In case you need to replace it, it is highly recommended to choose well-known major brands such as DELL, MICROSOFT, LOGITECH, or SAMSUNG.

1.3.2 System Shutdown and change password

Option 1. Click the Shutdown button and input password on pop-up to power off the DVR

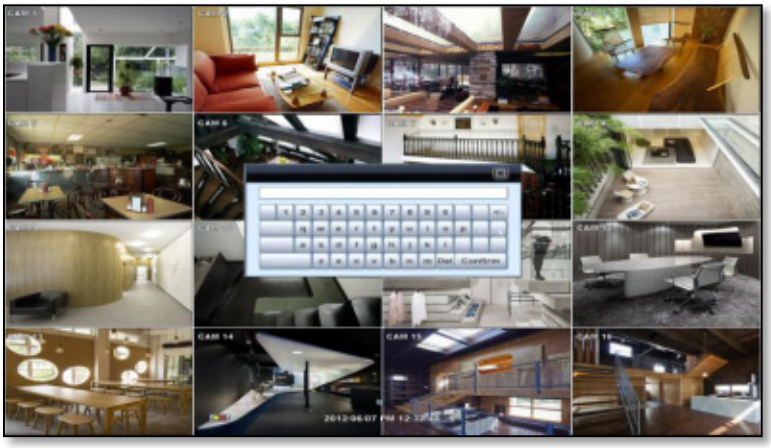
Option 2. Click the right button on the mouse and select the Shut Down to power off the DVR.





NOTE It is not recommended to disconnect the power cable abruptly from the back of the DVR because it may affect the DVR and Hard Drive.

The default password for 'admin' account is none. Therefore, just click 'Enter' button on the dial pad. If you changed the password for 'admin' account, please type in the changed password to login.



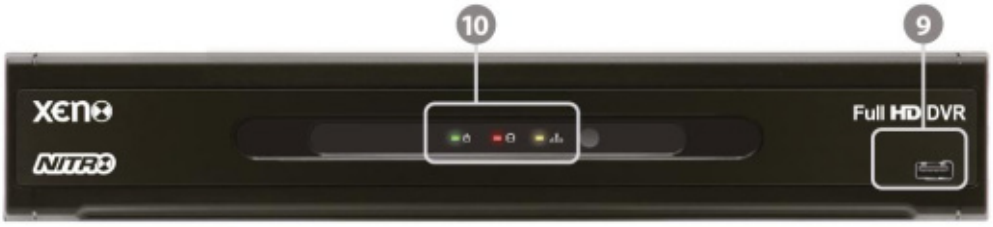
NOTE User can type in the password using the virtual keyboard or the numeric buttons on the IR remote controller.

2 EXPLANATION FOR EACH FUNCTION

2.1 Front Panel

4Ch/8ch DVR Front Panel (1U Case / 1 HDD)

16ch DVR Front Panel (1.5U Case / 2 HDD)

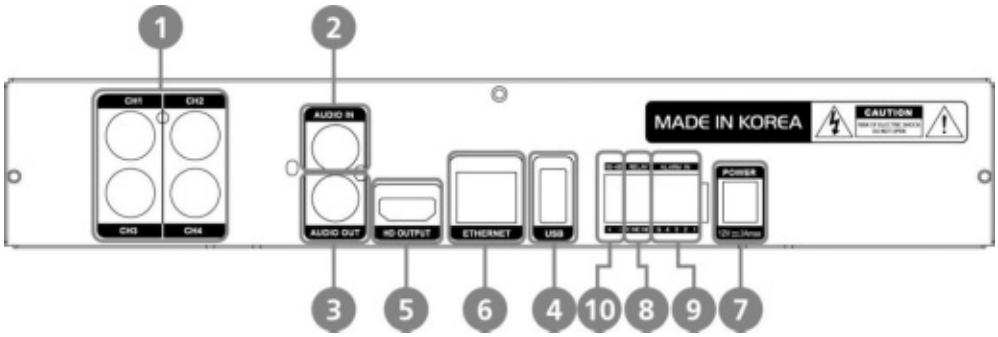


8ch/16ch DVR Rear Panel (1.5U case with integral DVD)

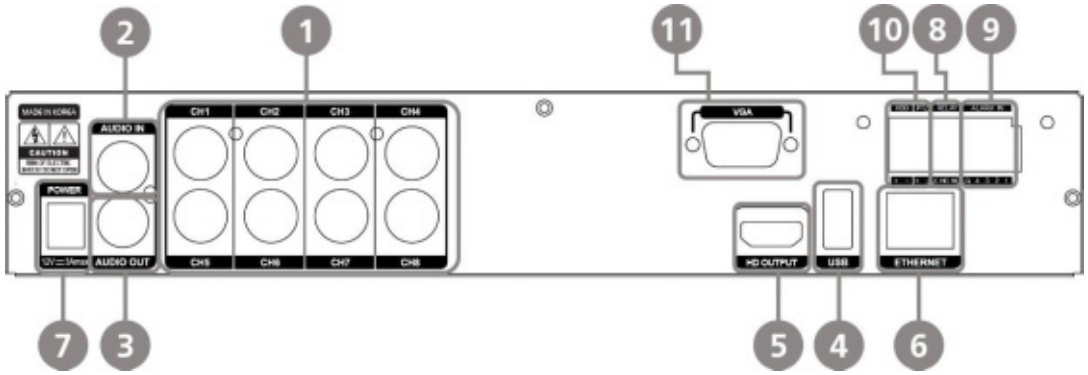
No.	Buttons	Functions
1	Fast Rewind Button	Forward Playback : Decrease the speed / Reverse Playback : Increase the speed
2	Forward & Backward Play / Pause Button	Forward play & Backward Play (Long Press) / Pause (Short Press)
3	Fast Forward Button	Forward Playback : Increase the speed / Reverse Playback : Decrease the speed
4	Search	Go to search mode
5	Book-Mark / Instant Play (Press and hold)	Book-Mark / Used to initiate Instant Reverse Playback
6	Instant Record /	Emergency Recording
7	PTZ I-backup (Press and hold)	Bring up PTZ Camera control / Used to initiate instant back up
8	Mode	Change screen mode
9	USB Port	USB port (Ver. 2.0) for mouse operation and backup device or F/W update
10	LED Indicator	Indicates system status Power, Record, HDD and Remote Control
11	Menu Exit	Open system menu / Return to previous mode
12	Enter Button	Select value or setting
13	Direction Button	Move to the direction that user wants to select
14	DVD±RW	DVD±RW : Open to use a pre-installed DVD±RW(Option)

2.2 Rear Panel

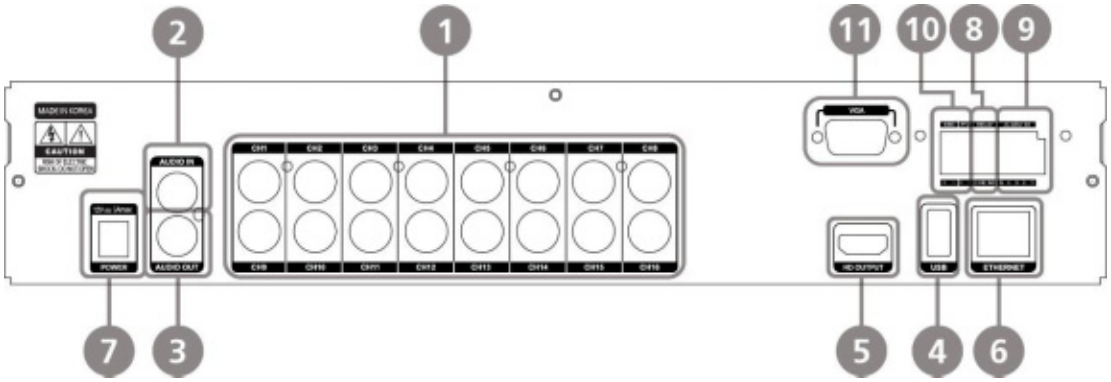
4ch DVR Rear Panel(1U Case / 1 HDD)



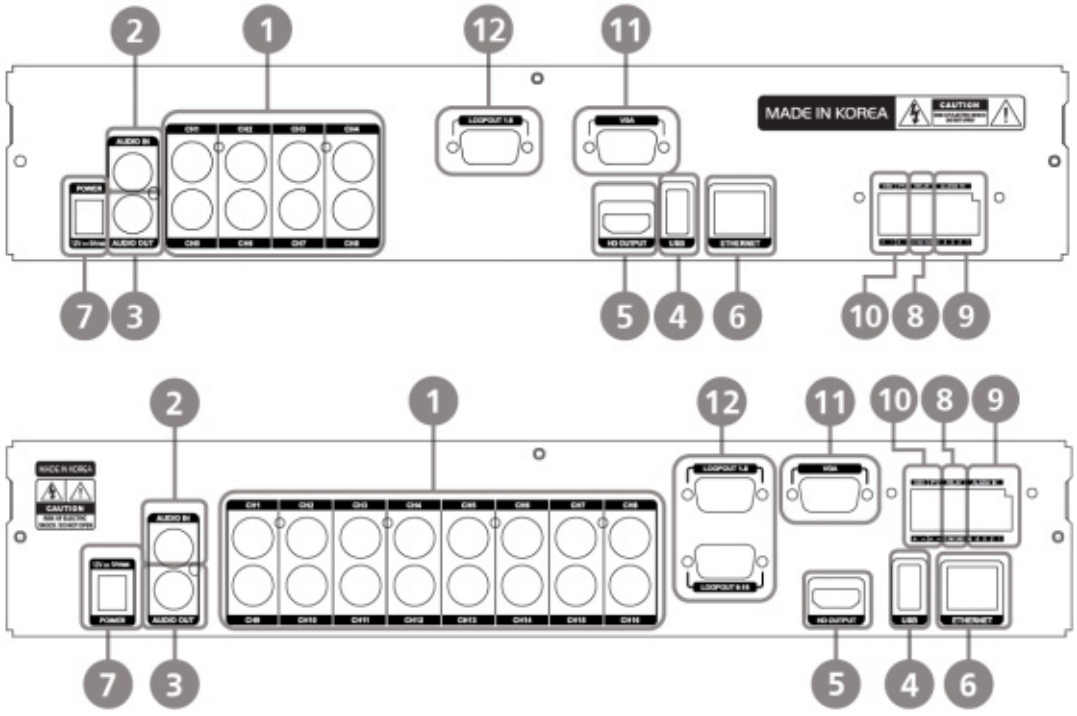
8ch DVR Rear Panel(1U Case / 1 HDD)



16ch DVR Rear Panel(1.5U Case / 2 HDD)



8ch/16ch DVR Rear Panel(1.5U case with integral DVD)



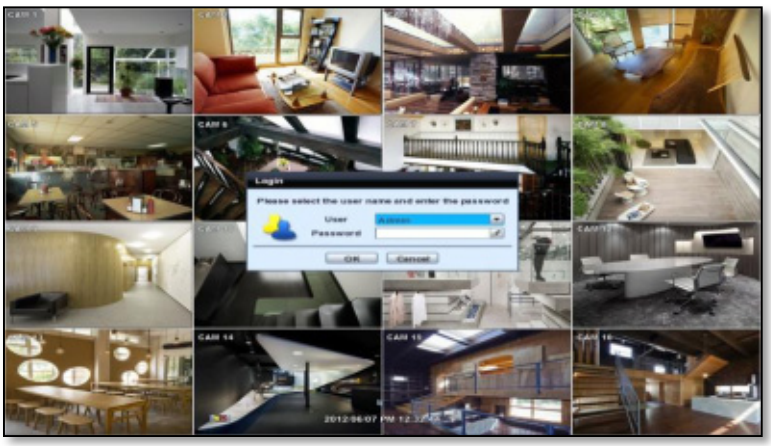
No.	Name	Description
1	Video-In	Camera inputs (Supports NTSC/PAL)
2	Audio-In	Audio Input Device (with Amplifier)
3	Audio-Out	Audio Output Device (with Amplifier)
4	USB Port	USB 2.0 Port for Mouse Operation, Backup Device, or Firmware Update
5	HD OUTPUT	HD OUTPUT
6	LAN Port	1 x 10/100/1000M
7	Power Input	4ch : 12V/2A 8ch(1 HDD) : 12/3A 8ch(2 HDD)/16ch : 12V/5A Loop out 8ch/16ch : 12V/5A
8	Alarm Output	Alarm Output
9	Sensor Input	Sensor Input
10	RS-485 Port	PTZ Dome Camera or External Keyboard Controller connection
11	VGA	D-sub VGA Output
12	LOOP OUT	Loops through output

Note Carefully check whether the specifications of the peripheral devices match the DVR's specifications.

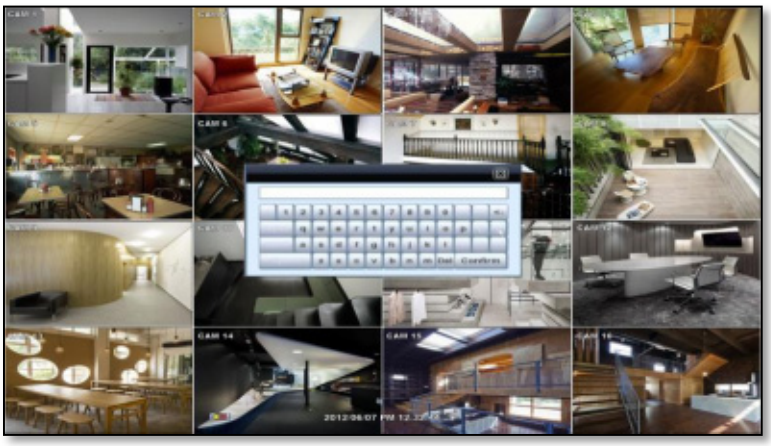
3 OPERATION

3.1 User Log-in

The DVR has various setting categories. The administrator can set the system password and <User> to prevent unauthorized changes to setting values and alteration of recorded file.



Enter the <Admin> or <User> password which had been set by using the virtual keyboard.



NOTE 1) <LOGIN> window will be permanently displayed in monitor as above picture until user logs in with the right ID and password.
2) If it is set as Auto Log-In, DVR does not require LOG-IN. (Please refer to 4.1.2 User.)

3.2 Live Display Mode

3.2.1 Full HD(1080p) Live Display

Full HD Live Display can be supported in live mode by using its HD output.

NOTE In playback mode, the maximum resolution is 1080P.

<Full HD Live Display>

3.2.2 Channel Selection

Channel selection can be done by following one of the steps below:

1. CH1~CH16 buttons in the IR Remote Control.
2. 1~16 virtual buttons at the bottom of the GUI display.

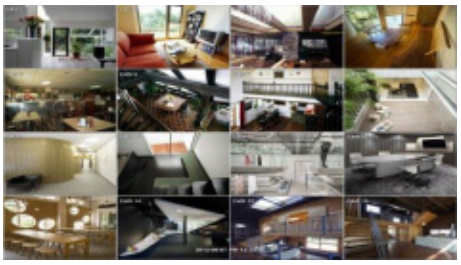
The display mode can be changed by pressing the 'MODE' button on the DVR's front panel.

The live images can be displayed in real-time in 1, 4, 9, 16 screen splits. Whenever the left/right arrow button on the front panel or IR remote controller is pressed, the screen will be sequentially changed.

[1 Ch]

[4 Ch]

[9 Ch]


[16 Ch]

To select channel by mouse, click target channel single time to display in full screen. To return to previous display mode, click the screen again.

To view the pop-up menu, right click anywhere on the display screen.

NOTE To properly select a channel using the mouse, the user is required to perform a slow and clear click of the left mouse button.

3.2.3 Icons

The live mode display's icons or messages will be indicated on the screen to indicate the system mode or status.

Below are the icon categories that are indicated on the monitor:

Icon to be shown at Left-upper corner on each channel screen		Icon to be shown at Left-bottom corner on full screen.	
C	Continuous Recording	SEQ	Sequence display on
M	Motion Detection Recording	ZOOM	Digital zoom on
S	Sensor Activating Recording		Audio Channel
C+M	Continuous+ Motion Recording		
C+S	Continuous + Sensor Activating Recording		
C	Emergency Recording		

NOTE If you cannot find any colored-mark in the top right corner of the live screen mode, then it means that the system does not record any image. In this case, you need to check recording schedule or camera of the main setup menu.

The sliding menu for display will be appeared when mouse cursor move into bottom and right click of mouse enale to access pop-up-menu.

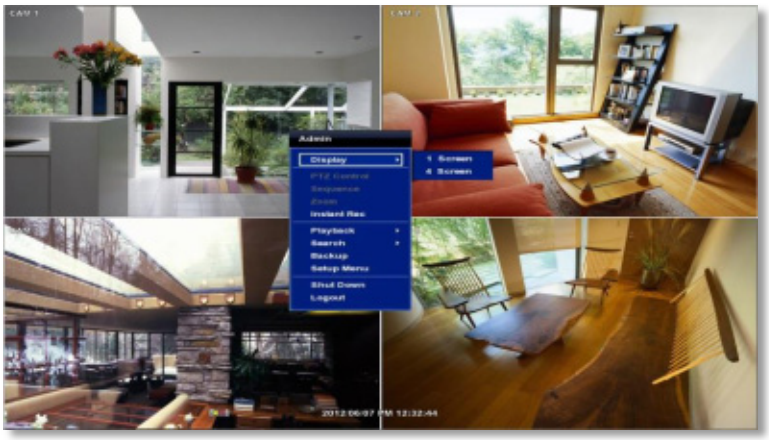
To show the menu bar, move the mouse's cursor to the bottom of the screen. The menu bar will be displayed.

To hide the menu bar, move the mouse's cursor away from the menu bar.

Menu Bar	
	Menu button. When pressed, System Setup, Search, Backup, Logout will appear.
	Screen split options- Select from single channel, 4 channel, 9 channel, or 16 channel display.
	Sequence- if pressed, the system will start displaying all the channels in sequence mode. To stop, press the button again, or right click on the screen and select 'SEQUENCE'
Ch. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	CH. Buttons- view a specifc channel in full screen mode.
	Instant (emergency) recording- The system will record video based on the panic record settings (Default: 15FPS @ 1080P).
	PTZ mode- Control any supported PTZ cameras by moving the mouse pointer.
	Go to Instant playback.
60%	HDD usage indicator- Indicates the percentage of your HDD being used. If it shows 60%, then 60% of HDD space has been used.

3.2.4 Pop-up Menu

User can click the right button of the mouse to pop up sub-menu as shown below.



DISPLAY- Select the display split from the available options:
- 1 Screen- Single channel. Automatically displays CH1. If 1 Screen is selected again, next chronological channel will be displayed.
- 4 Screen- Quad mode. Automatically displays channels 1~4. If 4 Screen is selected again, the next chronological 4 channels (5~8) will be displayed.
- 9 Screen- Automatically displayes channels 1~9. If 9 Screen is selected again, the next cohoronological channels (10~16+1~2) will be displayed.
- 16 Screen- Displays all 16 channels (available only in 16 channel models)

PTZ CONTROL- Open the DVR's PTZ control. See section 3.4 PTZ for more information.

SEQUENCE- when selected, SEQ icon will appear on the bottom right corner of the screen, and the display screen will be sequentially changed (Please note, option will be disabled if display area is in 16 channel mode).

ZOOM- Enables/ disables digital zoom function. When enabled, ZOOM icon will appear and zoomed area will be displayed on the bottom right corne. The Zoom will automatical y focus on the center of the camera's display. To adjust ot, go to the small zoom display at the bottom of the camera display and move the yellow frame to the desired are you would like to view in zoom. To move the yellow frame, use your mouse to drag the lines of the yellow frame to the desired location. To go back to live display mode, right-click on the screen and select "ZOOM" again. This feature is available in single channel mode only.

INSTANT REC- Start/ Stop Panic Recording.

PLAYBACK- Select playback option:
- 10, 15, 30, 60 seconds- start playback from the selected number of seconds ago.
- 2, 3, 5, minutes- start playback from the selected number of minutes ago.
- Open Playback Mode- automatically go to instant playback.

SEARCH- Select video search options:
- Date/ Time- open calendar search.
- First/ Last Data- Go to the first or last recorded data.
- System/ Event Log- open log search window.
- Bookmarks- open bookmark search.

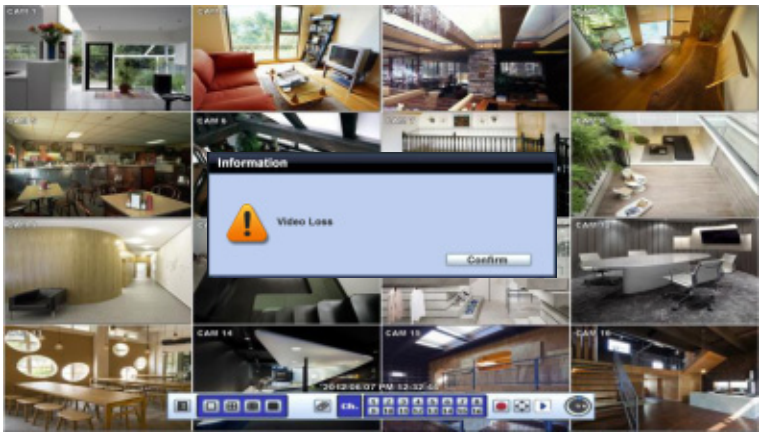
Backup - Users can archive a video clip recorded for a certain period on a selected channel.

SETUP- open the DVR's main menu.

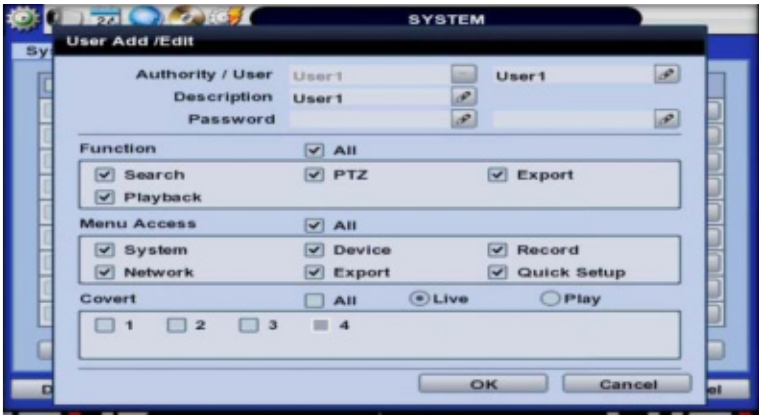
SHUT DOWN- Power off the DVR.

LOGOUT- User logout.

When a camera is disconnected, a warning sound may be generated depending on the system settings.



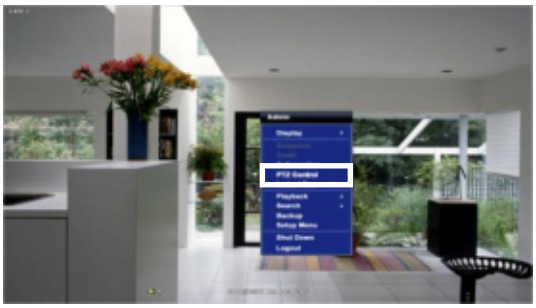
As the Admin user, you can seup up multiple users with different levels of authorization. If a certain user is not allowed to view a certain camera in live or playback, then no image will appear on the display screen. To create, delete, or modify users, go to the main menu and select system settings. See section 4.1.2 User for more information.

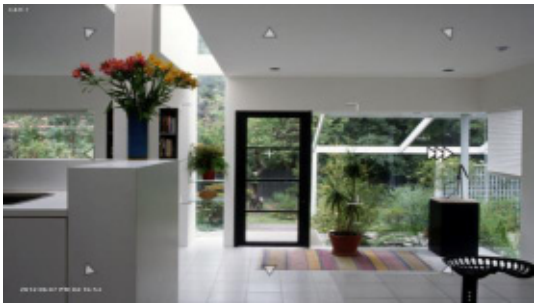


3.3 PTZ Operation

Before starting PTZ control, please make sure the camera you wish to control is a supported PTZ camera and is installed and configured properly. See section 4.2.6 PTZ for setup information. To enter PTZ mode, follow one of the options below:

1. Right-click on the screen and select PTZ Control.
2. Click on the joystick button in the menu bar located on the bottom of the main screen.
3. Press the PTZ button on the DVR's front panel, or
4. Press the PTZ button on the IR remote control.





In PTZ mode, user can control PTZ operation with the USB mouse.

While pressing the left button of the mouse, drag the mouse pointer up/down, left/right to move pan/tilt position of the camera accordingly. The further away from the center of the screen you move the mouse, faster will the camera move. The user can also zoom-in/out by rolling the wheel of mouse up or down.

NOTE Full PTZ functions are available by using USB mouse, IR remote control, or keyboard controller and are available only on supported PTZ cameras.

For focus control in PTZ mode, right-click to get the pop-up menu as shown below. Default mode is to "ZOOM". Select "FOCUS" to switch the mouse's wheel function from zoom-in/out to focus near/ far.

The user can also select the preset button to start/ stop a preset, or exit PTZ screen model.

NOTE User will see numeric pad to select "Preset" number. The preset is defined by setting a PTZ protocol in the setting menu. The maximum number of preset is 255, but the number of available presets may vary by camera make and model.

User can automatically switch PTZ camera positions according to defined presets by using the GUARD TOUR function. The connected PTZ camera must support touring functions. "GUARD TOUR" on the pop-up menu can be enabled only in full screen mode. See 4.2.6 PTZ for instructions on how to setup the GUARD TOUR.

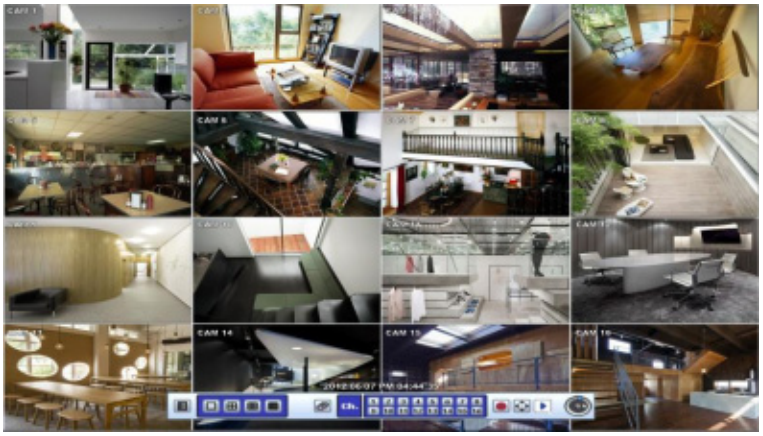
CAUTION	Depending on PTZ camera, some preset positions might be skipped if, for example, the PTZ camera cannot mechanically move or control focus within the interval time required by the DVR. In this case, it is recommended to increase the interval setting to a value that allows for the cameras to finish its Pan & Tilt.

3.4 Playback of Recorded Video

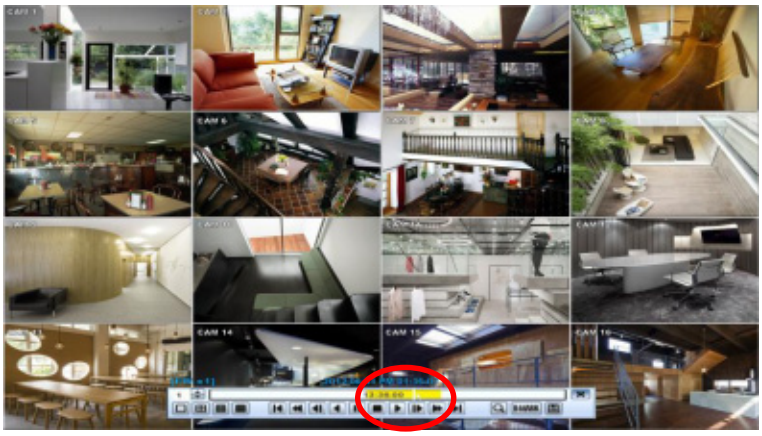
To play a recorded video, press the Play button from the menu bar, or the Instant Play in the DVR's front panel or on the IR remote controller.

The recorded files can be seen in rewind or fast forward modes. Press the rewind and fast-forward buttons to control the playback's speed (2, 4, 8, 16, 32 times real time when playing backwards or forwards).

User can click playback button to automatically play the latest video clip in rewind mode.



The picture below shows the system playing back a video.



In playback screen, user can make various playback modes, make an instant manual backup (archive), go to calendar search mode, change channel, and change screen modes. By clicking the left mouse button in the colored-time bar, the user can jump to a different time in the recording. In addition, user can move the vertical search bar and release by dragging it back and forth to search the desired time in detail.

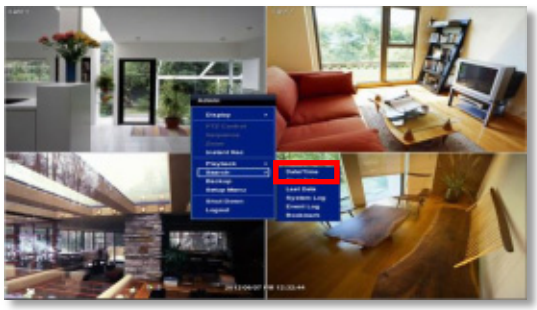
Button	Function
	Jump to first data. If recording is set to motion, system will jump to previous recorded motion video.
	Fast rewind
	Frame-by-Frame Rewind
	Play video in rewind
	Pause video
	Exit Playback to Live mode.
	Playback video
	Frame-by Frame playback
	Fast playback
	Jump to last data. If recording is set to motion, system will jump to the next recorded motion video.
	Go to calendar search
	Bookmark Video
	Backup
	Exit Playback to Live mode.

3.5 Search Recording Image

3.5.1 Date/Time Search

To search your recorded data by date/ time, follow one of the options below:

1. Click the quick Menu button at the left side of the menu bar, select Search → Date/ Time
2. Right-click anywhere on the screen, select Search → Date/ Time



The calendar window will appear, Days with recorded data available will be indicated in RED.

1. Select from the calendar the date. If necessary, use the manual year and month options on the left side to adjust the calendar view.
2. The 'Intelli-Search Bar' at the bottom of the window will display hours when recorde data is availablein color code. Once the recorded video data of the selected date is shown, user can adjust the vertical search line to the time that user wants to search by dragging a mouse. As the vertical line is moving back and forth, user can see "the Search time" clock is also changing. When user decides the Search time, click Play to see the selected video data.

3. The colors of the time bar are different, depending on the recording mode.

No color - NONE- Camera has no recorded data for the selected time.
Red- Panic recording- recording triggered by the user when pressing the Instant/ Panic Recoreding.
Yellow- Continuous recording.
Green- Motion recording- The system records only when motion is detected.
Orange- Sensor recording- The system records when a sensor is triggered and only during the dwell time as set in "SENSOR" of the "DEVICE" menu. If "SENSOR" is disabled under the "DEVICE" menu, and recording schedule is set to "SENSOR", the system will not record even though a sensor is triggered.
Blue- "Continuous" + "Motion"-The system records continuously and will switch to the motion recording configuration if motion is detected in the motion area. The system will also send a "motion event" message to the Central Monitoriong Software over the network. If "MOTION ALARM" is disabled in the "DEVICE" menu, and recording is set to "CONT + MOT", the system will record with continuous recording even when motion is detected in motion area.
Orange- "Continuous" + "Sensor"- The system records continuously and will switch sensor recording if a sensor is triggered during dwell time. The system will also send a "sensor event" message to the Central Monitoring

Software over the network. If “SENSOR” is disabled in the “DEVICE” menu, and recording mdoe is set to “CONT + SENS”, the system will record with continuous recording even when a sensor is triggered.

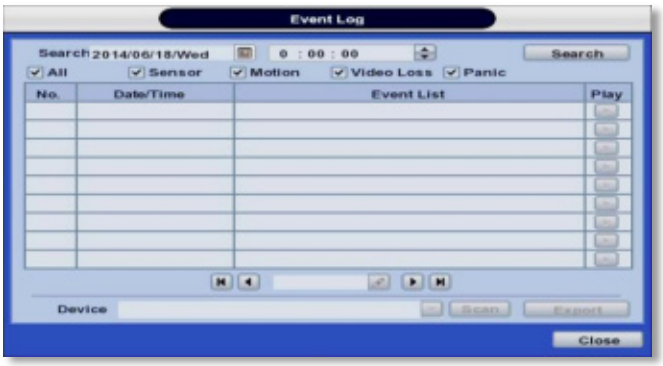
4. To view video from the selected time, follow one of the options below:
    a. Use the manual hour option to view specific hours of the day.
    b. Using the table, click on the hour you would like to view in playback.
5. Press the ‘Play’ button at the bottom fo the window. The system will display all channels in playback mode, corresponding to the selected date and time.

CAUTION	**Dark Blue Color** The data recorded during DST (Daylight Saving Time) will be indicated in Dark Blue color in the Intelli-Search Bar on playback mode.

3.5.2 Event Log

The Event log search allows you to search for a particular event, quickly and easily, displaying the search results in a detailed table format.

1. To open Event Log Search, perform one of the following options:
    a. Click quick menu button, select Search→ Event Log
    b. Right-click anywhere on the screen ans select Search→ Event Log.
2. Select the date you would like to search.
3. Select which events should be included in the log report. Select from: Sensor, Motion, Video Loss, Panic Recording, HDD Full, or All.
4. Press ‘Search’. The system will display all search results in the table, starting with the latest events.
5. Use the buttons on the bottom of the window to move between the log report’s pages.
6. If necessary, export this log report to a USB memory device in text file format.
    a. Attach a USB memory stick to the USB port
    b. Press “SCAN” to detect the USB stick
    c. Press “EXPORT” to copy the log information to the media.
7. Click play icon to play back the selected event data.

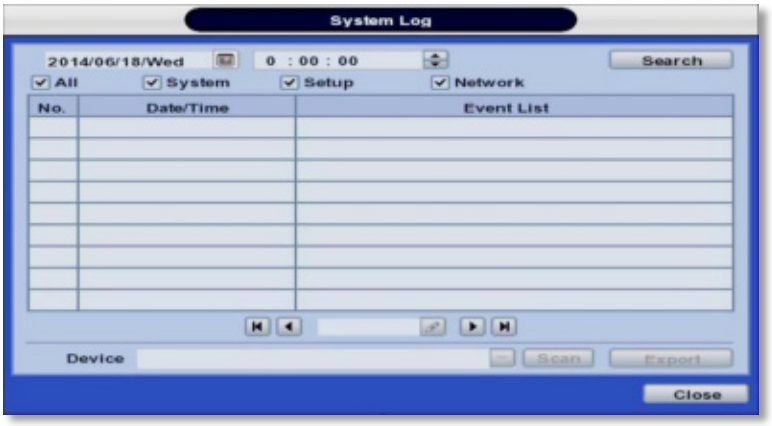


NOTE	If an alarm or event do not appear in the envent log, check the alarm settings, and connection port at the DVR’s rear panel.

3.5.3 System Log

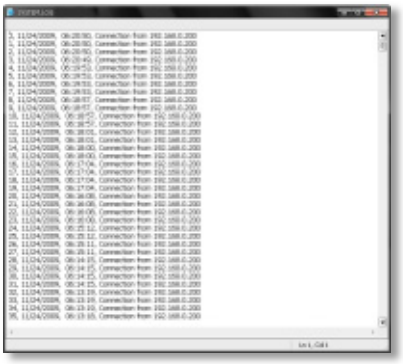
The system log search allows you to search for any changes made to the system, quickly and easily, displaying the search results in a detailed table format.

8. To open System Log Search, perform one of the following options:
    a. Click quick menu button, select Search→ System Log
    b. Right-click anywhere on the screen ans select Search→ System Log.
9. Select the date you would like to search.
10. Select which events should be included in the log report. Select from: System, Setup, Network, or All
11. Press 'Search'. The system will display all search results in the table, starting with the latest events.
12. Use the buttons on the bottom of the window to move between the log report's pages.
13. If necessary, export this log report to a USB memory device in text file format.
    a. Attach a USB memory stick to the USB port
    b. Press "SCAN" to detect the USB stick
    c. Press "EXPORT" to copy the log information to the media.

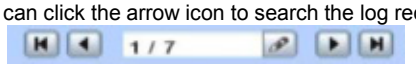


Once export is completed, the user can find a date folder created in USB thumb drive.

There is "system.log" file stored in the date folder.



NOTE 9 numbers of log record will be shown on one page of the <System Log> and <Event Log> window. User can click the arrow icon to search the log records on another page.



3.5.4 First Data

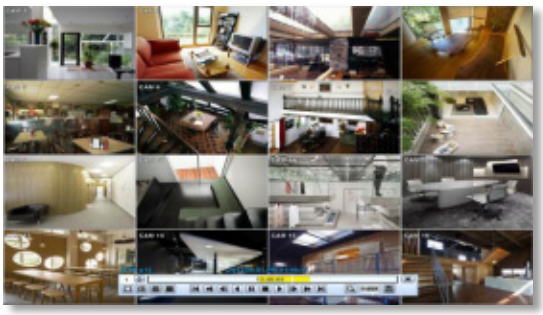
Go to the first screen of the recorded video. This is the oldest video recorded.

3.5.5 Last Data

Go to the last screen of the recorded video. This is the latest video recorded.

3.5.6 Bookmark

Go to the bookmark list to search the recorded video data in the bookmark list. Users can make their own bookmark list very simply by click button, during playback. When you do bookmark search, you can easily playback the bookmarked video data by clicking button, right next to each list.



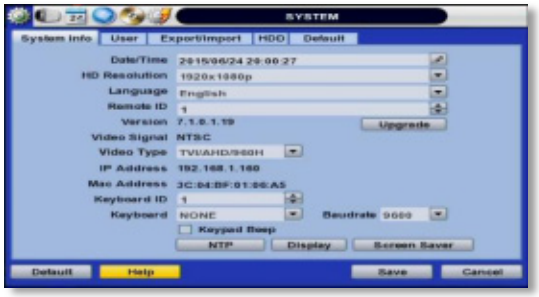
NOTE User can press “SEARCH” button on the front panel to get the SEARCH pop-up menu as shown above. In this menu, full search functionality is controlled using the front panel key buttons.

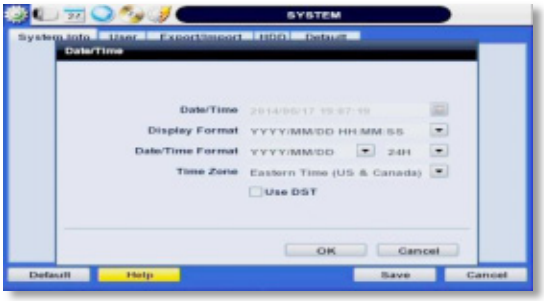
3.6 DST Setting

DST starts at 2:00 local time on 2nd Sunday of March, and ends at 2:00 DST on 1st Sunday of November.

During DST (Daylight Saving Time) period, DVR time clock has to be adjusted according to regional time zone. That is, the DVR time clock will be shifted by one hour after the DST settings start, and the DVR will restore the time clock back to normal after DST finishes.

To make DST setting on the DVR, go to the menu: SYSTEM > SYSTEM INFO and click "DATE/TIME" to get the DST setting window as shown below. User can setup DST "Begin & End" time after checking "USE DST" box.

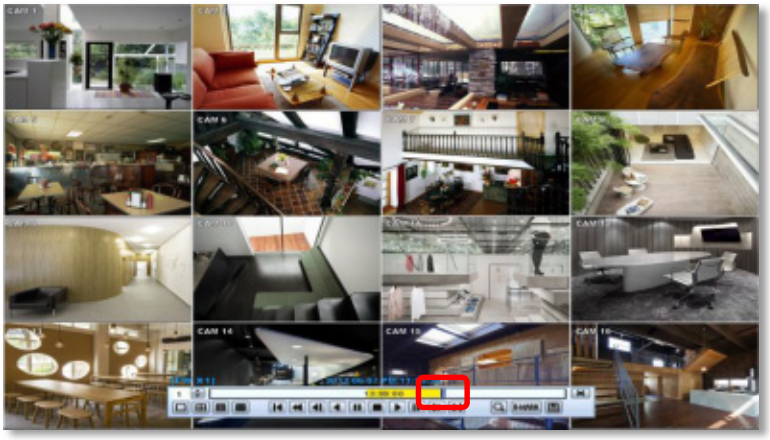




Since the clock jumps from 2:00 to 3:00, when you go to search mode, you can clearly see there is no data in all channels for one hour due to DST.

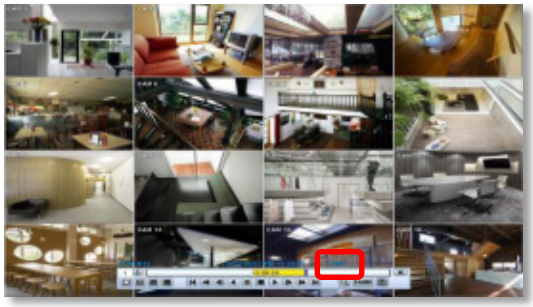
DST ends at 2:00 DST, and the clock jumps backward to 1:00 standard time on 1st Sunday of November.

When DST finishes, there is an hour of overlapped video. The overlapped time video will be indicated in a blue color in the Intelli-Search Bar during playback mode.



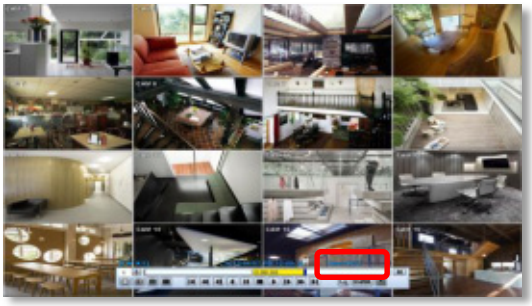
When user click on such overlapped period, a message titled “Recorded video Selection” will pop up. The user can then select whether to play DST data or Non-DST data.

Click OK to play DST image.



[“DST” image is displayed on screen]

Click CANCEL to play Non-DST image.

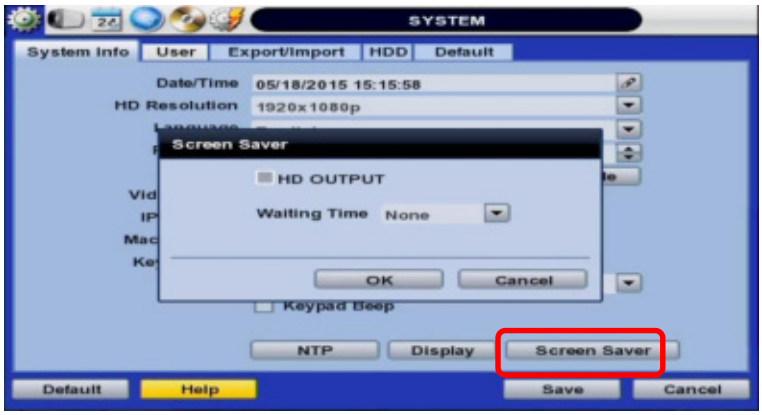


[“Non-DST” image is displayed on screen]

3.7 Screen Saver

To make SCREEN SAVER setting on the DVR, go to the menu setup: SYSTEM > SYSTEM INFO and click “SCREEN SAVER” to get the SCREEN SAVER setting window as shown below. Users can select HD output by checking the boxes. Users can set the WAITING TIME for when the monitor will automatically turn off.

Users can turn on the selected monitor by clicking a mouse, pressing any frontal key buttons, or pressing any buttons on the remote controller.



NOTE WAITING TIME: Users can select the WAITING TIME from NONE, 1,2,3,4,5,6,7,8,9,10,20,30,40,50, and up to 60 MIN. The SCREEN SAVER will not work when either WAITING TIME is set to “NONE” or HD OUTPUT checkbox is unchecked. SCREEN SAVER may not work, during system upgrade, HDD format, or data backup process. The system continues to record while the monitor is turned off.
When it comes to the “AUTO LOGOFF” setting, please refer to the USER setting.

4 SETTING

General setting structure consists of "System", "Device", "Record", "Network", "Backup," and 'Quick Setup" as shown below.

<SYSTEM>

<DEVICE>

<RECORD>

<NETWORK>

<BACKUP>

<Q-SETUP>

Main Classification	Sub Classification
SYSTEM	SYSTEM INFO
	USER
	EXPORT/IMPORT
	HDD
	FACTORY DEFAULT
DEVICE	CAMERA
	AUDIO
	SENSOR
	MOTION ALARM
	EXTRA ALARM
	PTZ
RECORD	RECORD SETUP
	PANIC RECORD
	SCHEDULE
	HOLIDAY
NETWORK	NETWORK
	DDNS
	NOTIFICATION
	HEALTH CHECK
BACKUP	BACKUP
Q.SETUP	QUICK SETUP

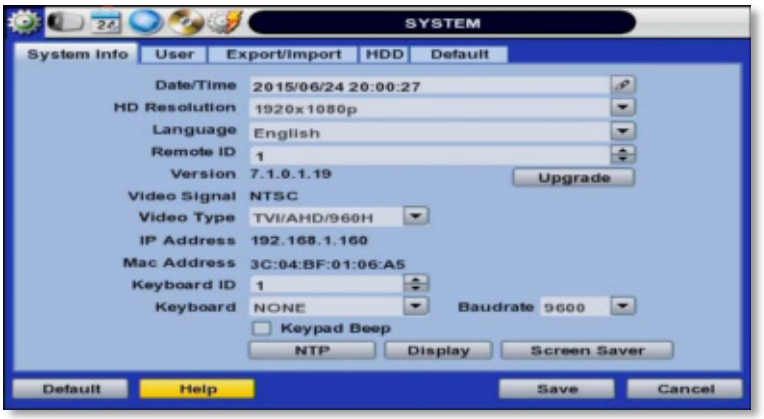
4.1 System

The system menu button is selected by clicking “TOOL” on the menu bar or clicking the right mouse button.

Users can move mouse pointer from “System” through “Quick Setup” to instantly look around the sub-menus on the menu screen. Using the left mouse button, the user can select a desired category for editing.

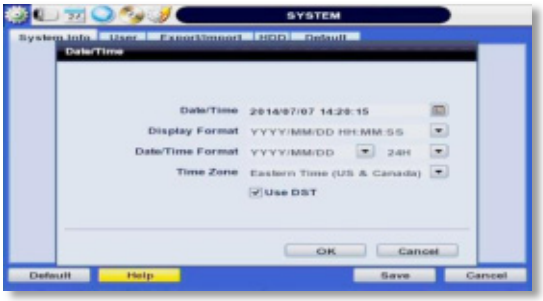
4.1.1 System Info

The System Info sub-menu includes the following setup options: Date/ Time, HD Resolution, Language, Remote ID, Version & System Upgrade, Video Signal, IP & MAC Addresses, Keyboard Setup, NTP Setup, Display Setup, and Screen Saver Setup.



- **Date/ Time**- manually enter the DVR's date and time, time zone, and enable/ disabled DST.

  Using the available options, manually adjust the date and time from the calendar, select the display mode for the time, and the date, and select the appropriate time zone. If applicable, check the 'USE DST' box. See section 3.12 DST Setting for more information.



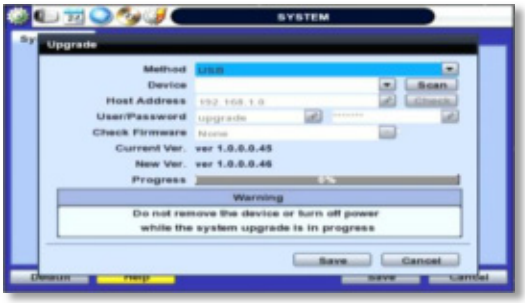
- **HD Resolution**- Select the DVR's output resolution. DVRs support the following video resolutions: 1024x768, 1280x1024, 1920x1080.
  User must set the proper resolution according to the monitor resolution
- **Language**- Select the DVR's display language from the availanle in the drop-down menu.
- **Remote ID**- Set the DVR's remote ID. This ID should be the same as the IR Remote Control.
- **Firmware Version & system upgrade**- when a new version is available, use the easy upgrade menu to upgrade your DVR to the latest version. To upgrade your system, follow one of the options below:

  Upgrading system using USB memory stick:

  1. Insert the USB thumb-drive formatted by FAT32 in any USB port of DVR (compatible with USB 2.0)
  2. Once the system detects the thumb-drive, user can see its brand or model name in the "DEVICE" field after pressing the "SCAN" button.
  3. Click "OK" to confirm.

  Upgrading system using FTP server:

  1. Select FTP in the drop-down list and type a given IP address in the Host Address . Username and password is "none" (Default).
     *The FTP server address is subject to change without a prior notice.
  2. Click 'Check' button then DVR will detect the latest Firmware version from the FTP server. If there is a new firmware, DVR will ask you whether you want to upgrade it or not.
  3. Click 'OK' to confirm it and then click 'START' to start upgrading.



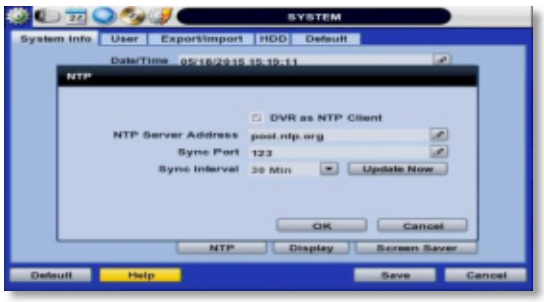
CAUTION It is recommended to format the HDD after finishing the firmware upgrade because the data recorded by previous firmware may cause malfunction of DVR due to different format.
It is highly recommended to check all functions and menus after a firmware upgrade for proper layout and performance. If necessary, you can return system to its default settings.

- **Video Signal**- Displays the video out signal from the DVR.
- **DVR's IP & MAC Addresses**- This information is necessary when connecting to the DVR via its web viewer or the Central Monitoring Software. See section 4.4 Network for more information and configuration options.
- **Keyboard setup**- Setup the DVR's ID, baudrate and model to match the information of the keyboard you would like to use. The Keyboard's ID must match the ID set in the DVR.

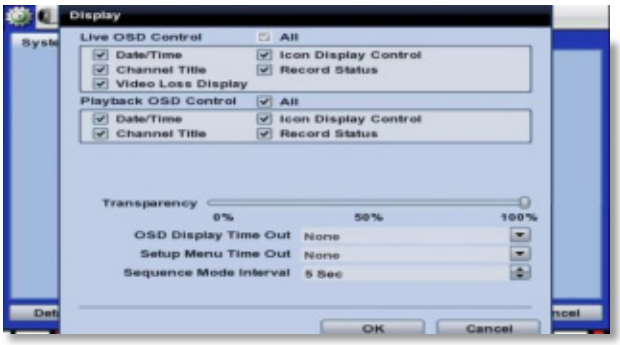
- **NTP Setup**- Setup the DVR to automatically sync with a Network Time Protocol.
  There are two types of TIME SYNC MODE:

  - Server Mode- The DVR is set as a Time Sync Server, which can synchronize its own time with another DVR(s) connected over the same network environment.

  - Client Mode- The operating DVR is set as the client DVR. Enter the IP address or URL of another DVR or Central Monitoring Software (CMS), as a Time Sync Server in "SYNC SERVER". This will cause your DVR to sync its time with a Time Sync Server in the set interval time.



- **Display Options**- Set sequence dwell time, pop-up camera, and OSD as indicated below:



  - OSD:

    - Select which information will be displayed in the OSD visible on each channel in **Live**.
    - Select which information will be displayed in the OSD visible on each channel in **Playback**.
    - Set the OSD's transparency level, the higher the percentage, the more transparent the OSD text will appear.
    - Setup a dwell time for the OSD text, after which, the OSD will automatically disappear.
    - Setup a dwell time for the Setup Menu, after which, the Setup Menu will automatically disappear.

  - Set sequence dwell time- Setup how long the system will display each channel in Sequence mode, before switching to the next channel.

    - You may select On/Off for Live or Playback status display by checking a check box.

- **Screen Saver Setup**- See section 3.13 Screen Saver for more information.

4.1.2 User

Master user of this system is always Admin with factory default of No password. This user cannot be deleted.

It is recommended that the Admin change the password for extra security.

Admin can designate a new user with different permission levels by: functions, menu access, and live & playback.

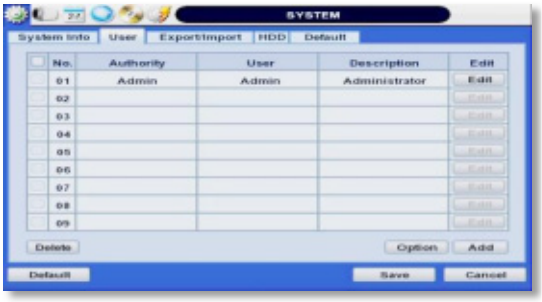
"Function" options restrict a user's access to functions such as search, PTZ control, backup, and playback.

"Menu Access" options restric a user's access certain menu settings, like system, device, record, network, backup, and quick setup.

"Live & Playback" options restrict a user's viewing of the deselected channels. If a channel is deselected, user will not be able to view live or playback for thet certain camera channel

NOTE Total number of users including administrator is 9 users.

User can change the setting, so the DVR does not require login or lock the DVR control.

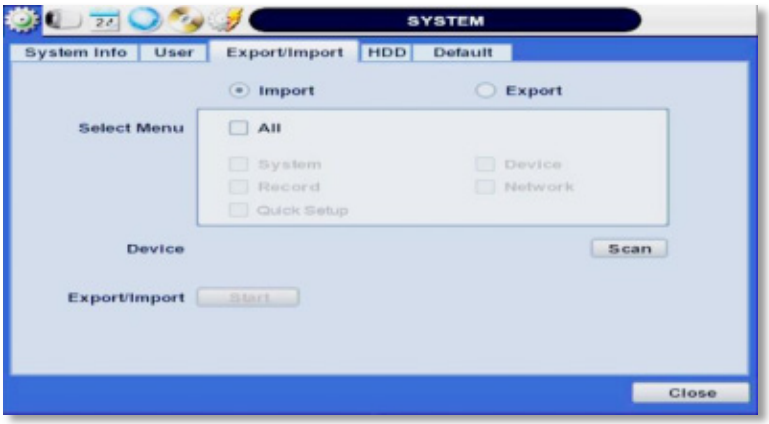


If user selects "On Boot", the DVR will not ask for an ID and Password input again even though the system reboots.

On the contrary, if user selects Auto Log-off and sets the time, the DVR will automatically go to the live display mode that occurs after the set time. Then, the DVR will ask for an ID and Password input when user wants to control the DVR.

4.1.3 Export/Import

Users can copy and paste the system configuration values in this menu. “Export” allows the user to copy the settings for this system to USB memory devices. “Import” allows the user to recall the settings saved from other systems using USB memory devices. During import process, make sure that the firmware version of source DVR is the same as the destination DVR.



4.1.4 HDD

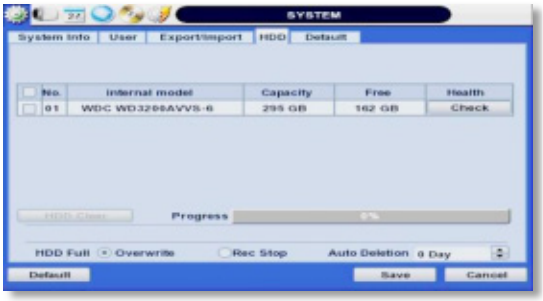
HDD information sub-menu displays all relevant information regarding all HDDs connected to the DVR.

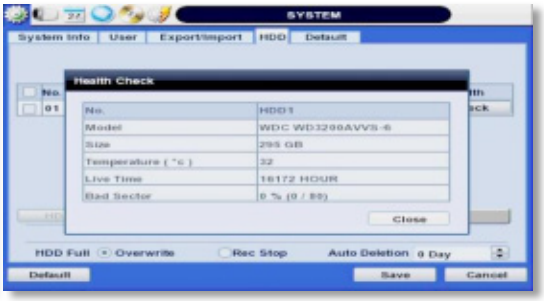
Press the ‘Check’ button next to the HDD’s name to view that HDD’s health status. When pressed, the system will display:

Model: Make and model name of the Hard Drive.
Size: Total size of the Hard Drive, in KB.
Temperature: Hard Drive’s current Temperature, displayed in Celsius. Normal operating temperatures should be between 30° and 45° degrees.
Live Time: Remaining estimated hours of operation.
Bad Sector: any unusable areas in the HDD that may affect recording, displayed in percentage of the total HDD.

User can select “Overwrite” or “Rec Stop” when the HDD is full. If ‘Overwrite’ is selected, when the HDD is full, new video will be recorded OVER older data. If ‘Rec Stop’ is selected, the HDD will stop recording any data once it’s full.

To formay a new HDD or an existing HDD, check the checkbox next to the HDD you would like to format, and click “HDD Clear”





If system resources are occupied with task, such as making a network connection or performing video playback during the format process, the format may fail. If the format fails, reboot the system resources and then try to format again.

NOTE
1) Formatting may take around 40 sec for 320GB, 1 minutes for 500GB, or 7 minutes for 2TB.
2) The system always reserves a maximum of 20GB of space in each built-in HDD to utilize the memory for archiving effectively.
3) Available 2 HDDs installation on 2 HDD CASE models only.

4.1.5 Factory Default

With an authorized password, users can get the system back to factory default configuration.

NOTE	Upon clicking "Start" button and entering the admin password, all the configuration values made by the user will be deleted. The system setting will be sent to factory defaults. The recorded video data will not be erased.

4.2 Device

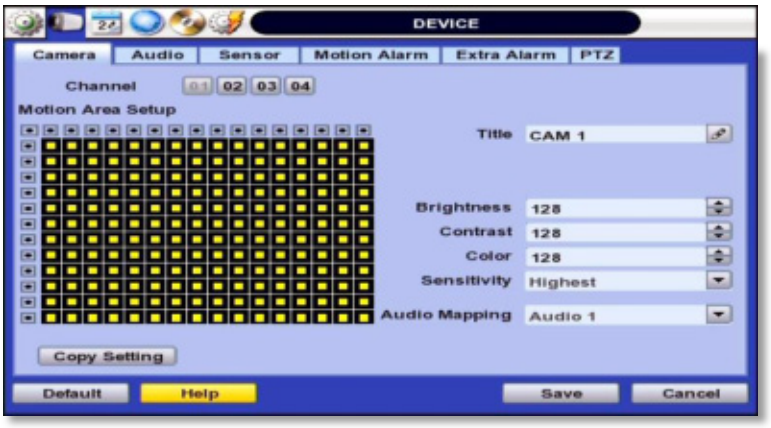
There are Seven sub menus in the Device menu, such as Camera, Audio, Sensor, Motion Alarm, Extra Alarm, and PTZ.

Users can easily move to the “Device” menu by selecting the icon on the top right of the menu screen.

4.2.1 Camera

Users can setup camera title, brightness, contrast, motion sensitivity, and audio mapping for each camera.

The default motion area setup is the entire camera area.

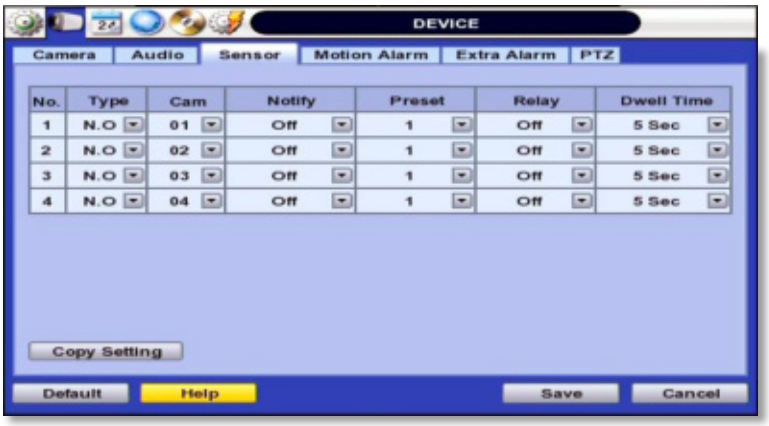


4.2.2 Audio

Users can select the audio input and output during live display and match the audio input to a designated channel. (Please refer to Section 4.3.1 Camera Record). Adjust the audio volume using the volume control panel, enable or disable audio recording for each channel, and enable or disable audio during live video.

In addition, users can listen to the audio for both live display and playback mode through the network using Central Monitoring Software (CMS), and/or Internet Explorer web browser.

4.2.3 Sensor



- **Type-** OFF, N/O (Normal Open) , N/C (Normal Close) The Sensor.
- **Cam-** Select the associated camera.
- **Notify-** Users can select how to be alerted when a sensor is activated or motion is triggered by pressing the "NOTIFY" button. The system can generate a buzzer sound and/or make a pop-up screen for the camera in alarm.

CAUTION	Relay contact can handle up to 24VDC/1A(or 125VAC/0.5A) of other devices. If connected to a circuit that is over 24VDC/1A(or 125VAC/0.5A), the system may experience problems.

- **Preset-** User can select the camera to move to a preset position, once the sensor is triggered. (User should setup preset position in PTZ menu 4.2.6 in advance). In addition, users can set multi-preset with a single PTZ camera. Therefore, users can cover a multi-preset zone with a single PTZ camera.
- **Relay-** 1 /Off Relay Output.
- **Dwell Time-** Set the recording period from the start of sensor input activation. During this period, the corresponding camera video will record according to the frame and alarm (relay) output set. The recording stops and alarm output is turned off when the dwell time has elapsed.
- **Copy Setting-** Upon pressing Copy Settings button, Copy Settings popup will appear. In this popup, choose the sensor the user wants to copy from at the “From” field. Choose the parameters such as Type, Cam, Notify, Preset, Relay, and Dwell Time on the check box. Check on the checkbox next to the sensor numbers to apply the copy setting(s) to another channel on the “To” box.

NOTE “Sensor” here means the alarm connected to the DVR, which is triggered by physical sensor input.

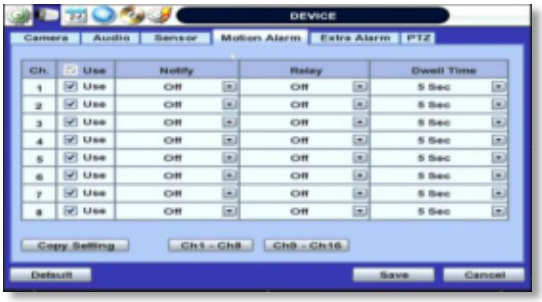
NOTE If the sensor does not operate properly check the setting of the sensor type (N/O or N/C).
The alarm might not function if the actual connecting sensor type and the sensor type in the system setting are inconsistent.

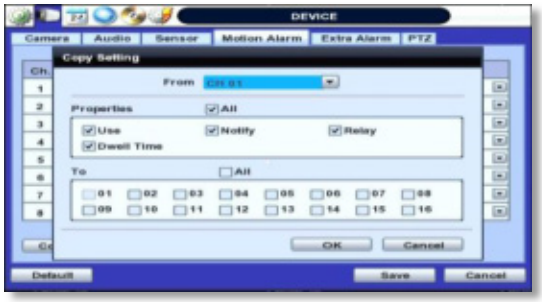
NOTE “Camera pop-up” means that multi-screen live video mode will be switched automatically to single channel mode, when an alarm is triggered. This single channel video will be the channel triggered by alarm.

4.2.4 Motion Alarm

Select Motion alarm to record only when motion detection is triggered by DVR S/W upon user's defined motion area.

An alarm signal is sent via the selected sensor-out channel.





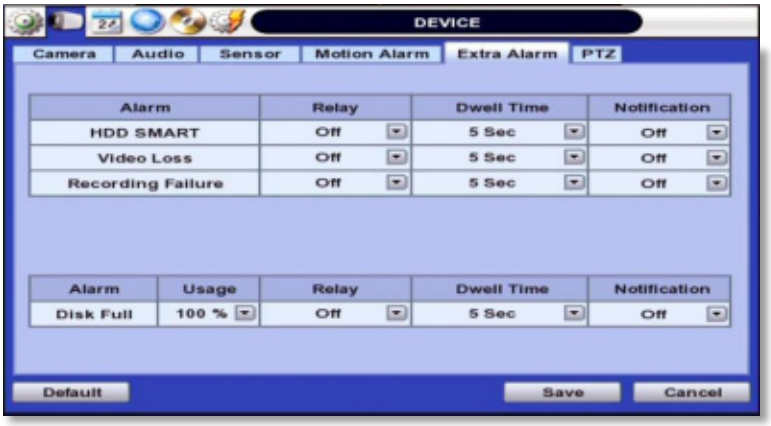
- **COPY SETTINGS**
  Upon pressing Copy Settings button, Copy Settings popup will appear. In this popup, choose the camera the user wants to copy from at the "From" field. Choose the parameters such as Use, Notify, Relay, and Dwell Time on the check box. Check on the checkbox next to the sensor numbers to apply the copy setting(s) to another channel on the "To" box.

NOTE "Motion Alarm" here means alarm triggered by motion detection set by motion menu of DVR.

4.2.5 Extra Alarm

S.M.A.R.T. alarm is an alarm signal triggered when the HDD is about to be out of operation.

This alarm is created by the HDD and captured by DVR. If the HDD does not create this alarm, then the DVR also cannot capture and output this signal.



Users also set the percentage for HDD Usage. For example, when Usage is 50%, DVR will notify by a camera popup or a beep sound when HDD is 50% full.

4.2.6 PTZ

Full control of PTZ camera is available in this menu.

For details, please refer to Section 3.3 PTZ Operation.

- **Protocol**

Select the proper protocol of the connected PTZ camera.

- **Address**

Set the PTZ driver address of the connected camera.

- **Check the below items for proper P/T/Z operation.**

1. Check if the protocol of the connected PTZ camera is correct.
2. Check if the communication settings, including the baud rate, of the connected PTZ camera are in accordance with the assigned value for that P/T/Z protocol.
3. Check if the address of the connected PTZ camera is correct.
4. Check if the wiring to the P/T/Z controllers are correct.

PROCEDURE	**How to setup PTZ camera with Pelco-D protocol (example)** 1) Make sure the serial communication with the PTZ camera is through RS-485 port. 2) Select “Pelco-D” at the protocol list, and set the address. 3) Select Baud Rate to be the same as the PTZ camera 4) Click the “Save” button to confirm this configuration.

- **Preset**

The system supports the number of preset from 1 to 255.

- **Baudrate**

User can select the baud rate level from 1,200bps up to 38,400bps.

NOTE	Auto Pan, Aux & Guard Tour- These options allow the DVR to command a PTZ camera to move to a specific position, or run a pattern. These special settings may require a lot of processing capacity and memory from the DVR. To maintain the health of your DVR, it is recommended to setup all presets, patterns, or scans directly from the PTZ camera itself.

4.3 Record

Users can configure various record settings such as Continuous, Event, and Panic for each individual camera channel in the Record Setup Menu. Network Stream settings are independently configured from the Record settings in this menu as well. Therefore, the user can optimize the bandwidth used by configuring the resolution, FPS, and image quality separately.

4.3.1 Record Setup

1. Locate RECORD icon from the main menu.

2. On the Record window Click on Record Setup tab.

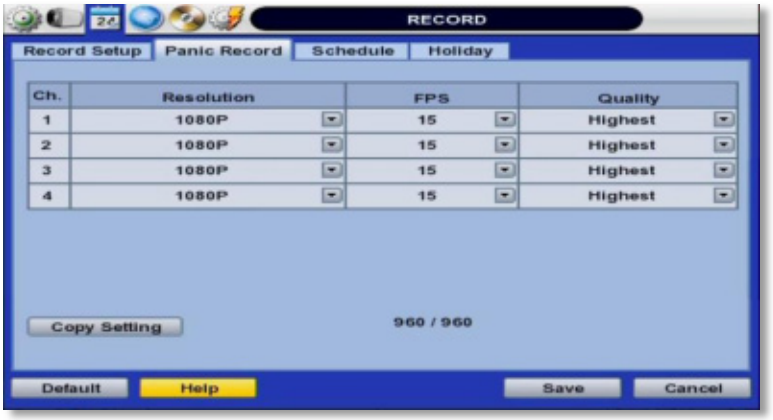
3. Choose the desired resolution, frame rate, quality and recording type for continuous recording.

4. Choose the desired frame rate, quality and recording type for Event recording.

5. Configured each channel separately, or use the copy settings button to apply one channel's settings to multiple channels.

NOTE **COPY SETTINGS-** Copy Settings popup allows you to choose the camera you want to copy from in the "FROM" field. Choose which settings you want to copy, such as Resolution, FPS, Quality, Event FPS, Event Quality, PreAlarm and PostAlarm. Check the checkbox next to the cameras to apply the copy setting(s) to another channel on the "To" box. channel on the "To" box.

Users also have the option to configure Panic Record settings. The Panic Record setting is intended to be used under emergency situations. You engage Panic recording by pressing the “Instant Record” button on the frontal keypad, or clicking the icon from the control panel in live mode. It is highly recommended to use the maximum resolution, FPS, and quality for this record type.

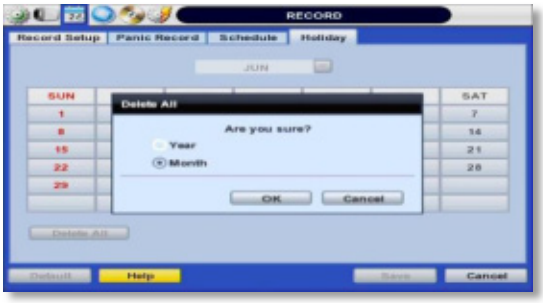


4.3.2 Schedule

You can set up the record schedule by applying a various record modes to each date and time. Simply select a record mode by mouse and drag it to the desired date and time.

4.3.3 Holiday

Users can setup a specific day of a month or day of week as a holiday as shown below. Once holiday is selected, the recording setup for those holidays will be affected by the schedule setting in the schedule.



4.4 Network

4.4.1 Network

The system has built-in web server.

- **ETHERNET**

- DVR network system

- ETHERNET LAN port

- **Network Type**

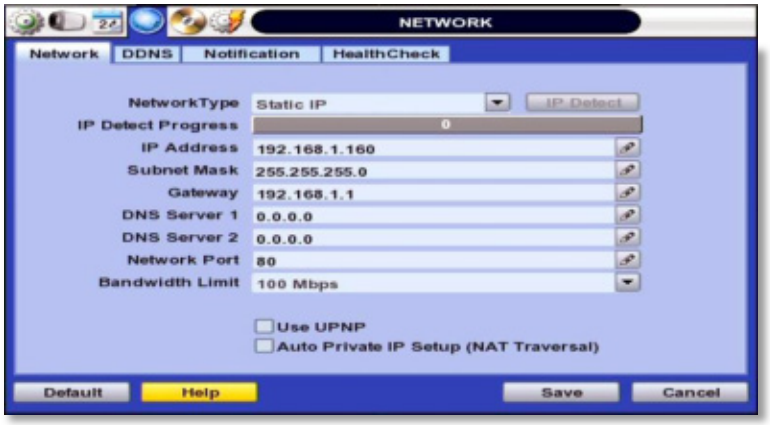
Select network connect type. Select either LAN for fixed (Static) IP or DHCP for dynamic IP.
If DHCP is selected, click 'IP DETECT' button to detect IP address information.

- **Subnet Mask**

Subnet Mask address classifies the subnet that the system belongs to. Standard address is 255.255.255.0. For more information, please consult your network administrator or your internet service provider

- **Gateway**

This is the IP address of the network router or gateway server. It is required when the user wants to connect through the external router from the remote. For more information, please consult your network administrator or your internet provider



- **DNS Server**

Enter the IP address of the Domain Name Server. There are two DNS settings. (The preferred DNS and the alternative DNS)
*You should enter the DNS Server information in order to use internet. (Provided by your ISP)

- **Network Port**

Enter the port number to use when connecting locally or remotely, or to mobile phones or WebACS.

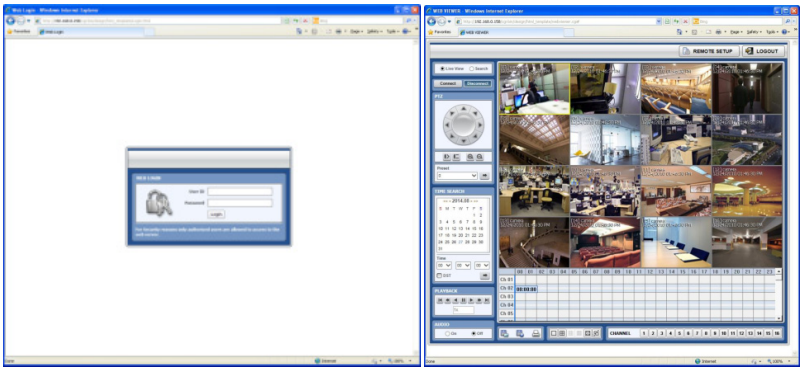
Enter the port number to use when connecting from the Web Browser.

- **UPnP (Universal Plug and Play) and Auto Private IP Setup (NAT Traversal)**

UPnP stands for Universal Plug and Play, which is a relatively new technology that indicates a universal protocol for widespread plug-and-play devices to ease the network implementation. When a PC and a DVR both installed the UPnP function, the PC can automatically recognize the DVR in the same local area network. The advantage of this function is that a PC can connect to the DVR directly by clicking on the icon representing the DVR in <My Network Places> folder as shown below. The first five characters of the file name of a detected DVR is subject to a firmware version

DVR-04 DVR -05 DVR -06

Simply double click on the desired icon. Then, it will open an internet browser that connects to the DVR via the remote control software as shown below. Please type in your User ID and Password to login and click 'Connect' button to connect.



- **Auto Private IP Setup (NAT Traversal)**

The UPnP NAT Traversal function will help to automatically setup a router if the DVR connects to the internet via a router.

When a PC connects to a DVR, which is not in the same local area network, a real IPO address and corresponding port number is required. However if the DVR is behind a router, the communication between the PC and the DVR will be transmitted back and forth by the router. The router will need to setup port mapping (Port Forwarding) before images from the DVR is remotely viewed on the PC. For each individual DVR, the setting needs to be done individually.

If the DVR has UPnP NAT traversal function, the setting of the router will be done automatically when it is enabled.

Just check 'Auto IP (NAT Traversal)' check box in the UPnP setup menu. Then it will take care of Auto IP detect by itself.

NOTE	The system transfers video images at real-time over the network even during no record. For example, user can monitor live video even when motion has not occurred during motion detection mode.

NOTE	If there is no physical network connection, it may take a few minutes for the system to start working, since the network configuration in DHCP mode and the DHCP connection cannot be made.

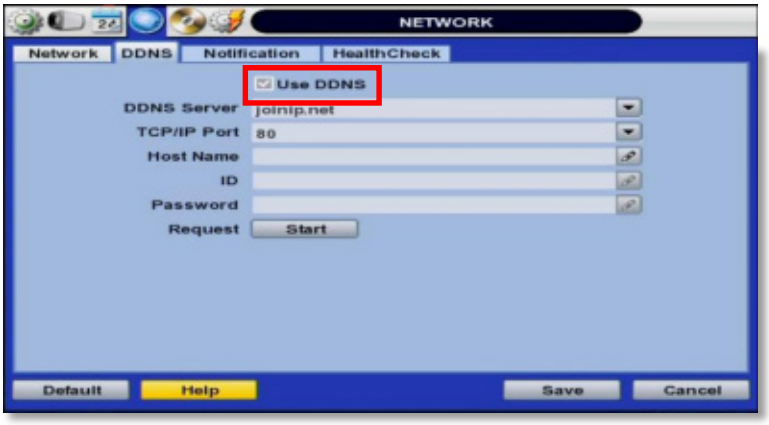
4.4.2 DDNS

The User has to mark the “Use DDNS” check box to use it.

- **DDNS Server**

Joinip.net or joinip2.net is the fixed domain name of DDNS server

User cannot change the DDNS name.



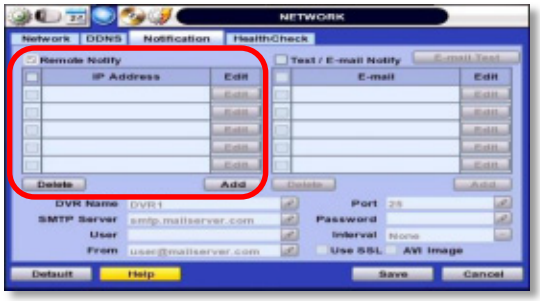
NOTE The standard DDNS domain name is joinip.net, and users can use joinip2.net or dyndns.com by drop-down list.

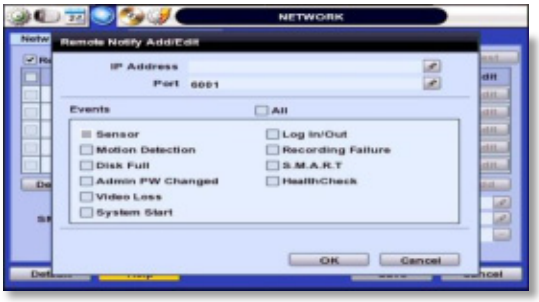
4.4.3 Notification

- **Remote Notify**

The system can notify an alarm message to the IP address of Central Monitoring Software over the network.

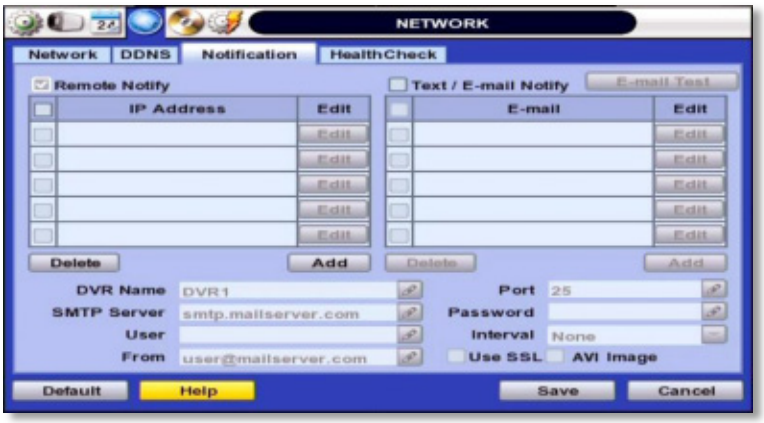
User can choose from a selection of different kinds of alarms by pressing "ADD." Alarms can be generated by Sensor, Motion Detection, Disk Full, Admin PW Changed, Video Loss, and Power On/Off.





- **E-Mail Notify**

The system can send notification to an Email address the Central Monitoring Software over the network. User can choose from a selection of different kinds of alarms by pressing "ADD." Alarms can be generated by Sensor, Motion Detection, Disk Full, Admin PW Changed, Video Loss, and Power On/Off. By clicking "Use SSL", users can use a public email address such as Yahoo, Google, Hotmail accounts. Type DVR name in the "DVR Name" box. The DVR name will appear in the email so that users can recognize which DVR sent an email.



NOTE Configuration's first priority is always given to "Schedule Setup " of the "RECORD" menu.
Thus, the system will not send alarm message or email notification upon motion alarm or sensor even though user marks the checkbox of above event selection, unless user sets the "Schedule Setup" in the "RECORD" menu.
For example, if user sets "Continuous" only for "Schedule Setup " of the "RECORD" menu and marks the "All" checkbox in "REMOTE NOTIFY", then the system will not send alarm messages. In this case, user has to set "C + M", "MOTION", "SENSOR" or "C+ S" for REMOTE NOTIFY or E-Mail NOTIFY to function properly.

4.4.1 Health Check

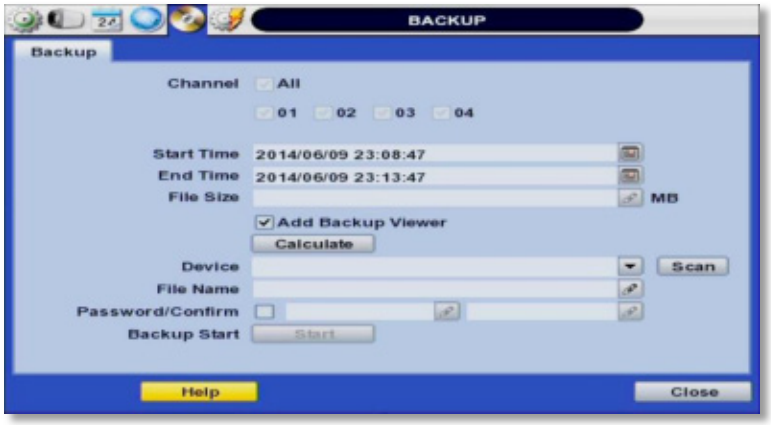
The DVR offers a uniquely true DVR health monitoring, with pop-up messages and e-mail notification on video loss, recording failure, and HDD failure.
To setup:
1. Check the box next to "Enable Health Check"
2. Check the box next to the conditions you would like to be notified on.
3. Set the occurrence intervals.
(For Example: when video loss occurs more than1 time a minute)
4. Select whether to receive a popup message when conditions are met.
5. Go to Network→ Notifications.
6. Under e-mail notifications, make sure the Health Check option is enabled.
When any of the failures occur beyond the set conditions, the system will display a popup alert and send an e-mail notification.

4.5 Backup

4.5.1 Backup

Users can archive a video clip recorded for a certain period on a selected channel or channels as shown below.

Connect an appropriate USB memory device, like USB thumb drive, USB HDD, and press "SCAN" button to get the system to recognize it before archiving. Necessary file size will be shown before burning.



NOTE	Backup device shall be a well-known major brand of USB thumb drives formatted by FAT/FAT32 for proper backup.

NOTE	User can easily backup video in "Quick Backup" during video playback. Refer to section 3.5 for quick backup details.

NOTE	User can click the "Calculate" button to learn the backup file size before executing backup.

NOTE	User can rename the backup file name before starting backup process and also put a password in the backup file for security purpose. In order to playback the file, user should input the password.

4.5.1 Backup Video Retrieve

There will be a single file after archiving, if “Auto Player” was selected.

User can double click “Player.exe” file to open the video data file (PSF format) in the folder.

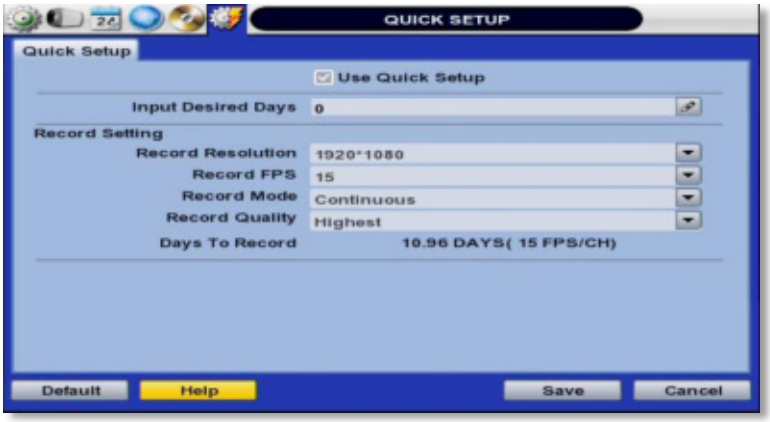
User can print out, capture a still image, zoom out, or make an ASF file format, by using the icons located on top of the player window.

NOTE User also can play the backup-video clips by Central Monitoring Software.

4.6 Quick Setup

Quick Setup helps user make simple configuration for recording resolution, entire recording speed by frame, recording mode, and recording periods.

The system will put the first priority for configuration on this quick setup and will follow this rule regardless of configurations set in other menus. Users should not fill in the checkbox of Use Quick Setup if he/she wants to utilize full system configuration defined in the other menus.



NOTE Quick setup must be deactivated if the user requires configuration from the other menus.

NOTE After the user marks "Use Quick Setup" to define settings, the system will ignore all other configurations set by full menus.

5 WEB SURVEILLANCE

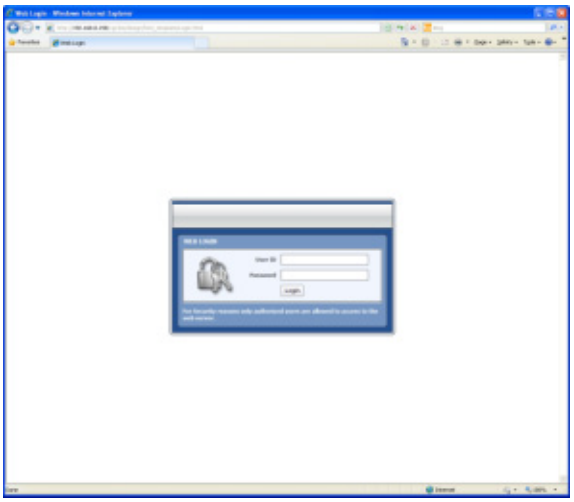
The DVR has a built-in web server.
Using an ordinary web-browser over a network, users can always stay connected to the system for live monitoring, playback, or remote configuration without installing any remote client software.

5.1 Web Login

The user is required to input the correct IP address in the web browser after making the web port available in the router. Please note, if you are connecting to the DVR from a remote network (via the internet), you must port-forward the corresponding ports in your reouter before you can access your DVR.

For more information, see the Appendix section, and consult your Installer or Internet Service Provider.

After allowing the download of the Active-X file (see page 58 for more information), users can find the login page view seen below. Default USER ID is “admin” and No password.



It is recommended to use an Internet Explorer web page.
To open the DVR’s web viewer on a Google Chrome web viewer, please install the IE Tab add on option.

Then, simply enter the DVR’s IP address or DDNS address in the address bar and click on the on the tool bar of the web viewer.

5.2 Web Configuration

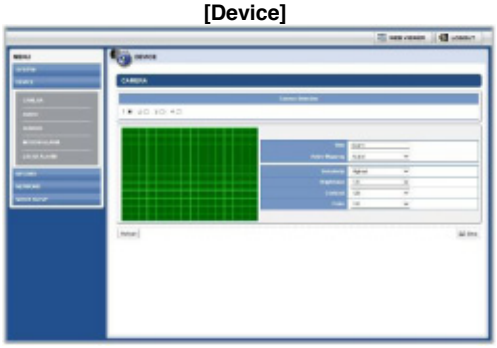
Menu of Web Configuration

Main Classification	Sub Classification
SYSTEM	SYSTEM INFO
	USER
	HDD
	DEFAULT
DEVICE	CAMERA
	AUDIO
	SENSOR
	MOTION ALARM
	EXTRA ALARM
RECORD	RECORD SETUP
	PANIC RECORD
	SCHEDULE
NETWORK	NETWORK
	DDNS
	NOTIFICATION
	HEALTH CHECK
QUICK SETUP	QUICK SETUP

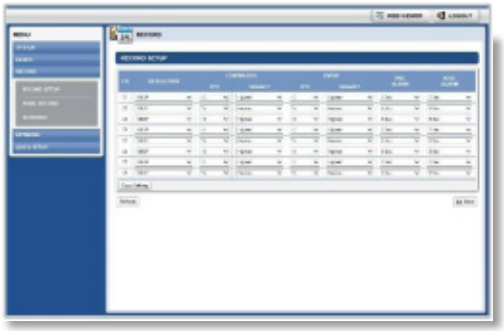
After logging in with the right ID and password, users can make various configuration changes in the Web Configuration window seen below. This Web Configuration menu is only available to the "admin" account.

[System]

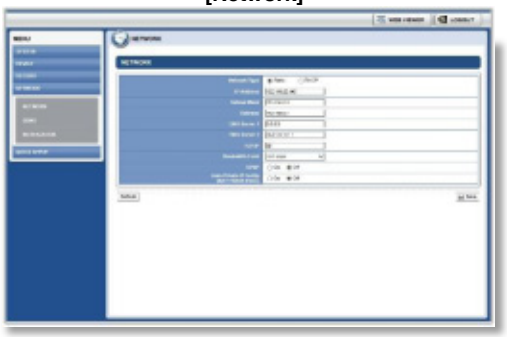
[Device]



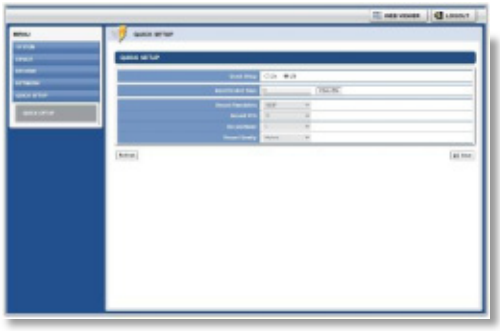
[Record]



[Network]



[Quick Setup]

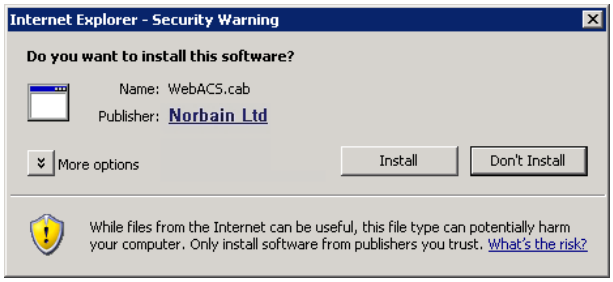


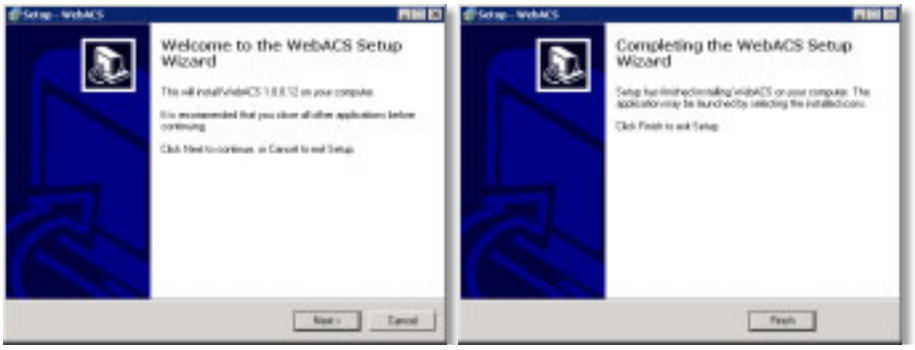
NOTE	This web CGI screen is directly supported from the built-in web server in the DVR, regardless of Internet connection.

NOTE	<System Reboot> enables user to reboot the system without any changes to the setup. When the network is disconnected due to abnormal operation of the system, user can use this function and try to reconnect. However, the IP number assigned to the system may be changed due to the DHCP mode.

5.3 Web monitoring

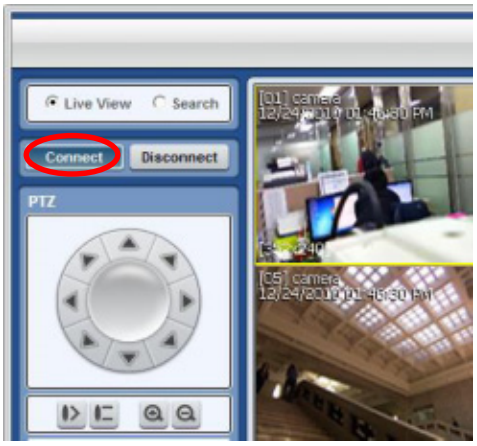
The first time you access your DVR via the Web viewer, you will be asked to install Active-X file before monitoring live video. Please follow the installation process to complete the Active-X installation. Without it, you will not be able to view video from any of the DVR's channels.


Internet Explorer - Security Warning
Do you want to install this software?
Name: WebACS.cab
Publisher: Norbain Ltd
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?



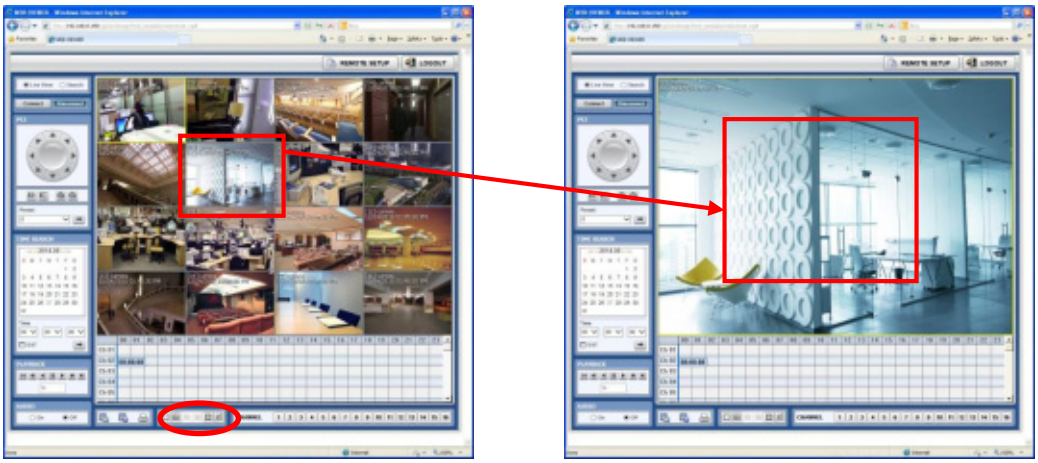
[Web Active X Install]

User can get into web monitoring after log in as shown below. In order to connect to DVR, the user has to click " Connect " button which is located at the top left corner.



No.	Title	Function
1	Connection Mode	Select to view the DVR in Live or Playback Mode.
2	Connection Option	Select to Connect or Disconnect from the DVR.
3	PTZ	PTZ control options, including: virtual direction arrows, zoom and focus, and preset.
4	Calendar	Date & Time search.
5	Playback Controllers	First data, fast rewind speed, play rewind, pause, play, fast forward speed, last data.
6	Audio	Enable/ Disable audio.
7	Export Options	Export a still image, export a video, or print a still image with notes of a selected channel.
8	Display Options	Select single, 4-channel mode, 9- channel mode, or 16-channel mode (16-channel display will not be available on 8-channel models).
9	Channel Selection	Select manually a specific channel to go to single channel mode.
10	Time bar	In playback mode, indicates available recorded video for each channel for the 24 hours of the selected day.
11	Time indicator	Use the time indicator line to update playback video from a selected channel or multi-channels.
12	Main Display Area	View live or playback from the selected cameras.
13	Remote Setup	Will open remote setup option (See 5.2 Web Configuration). Available for admin users only.
14	Logout	Exit connection from the DVR.

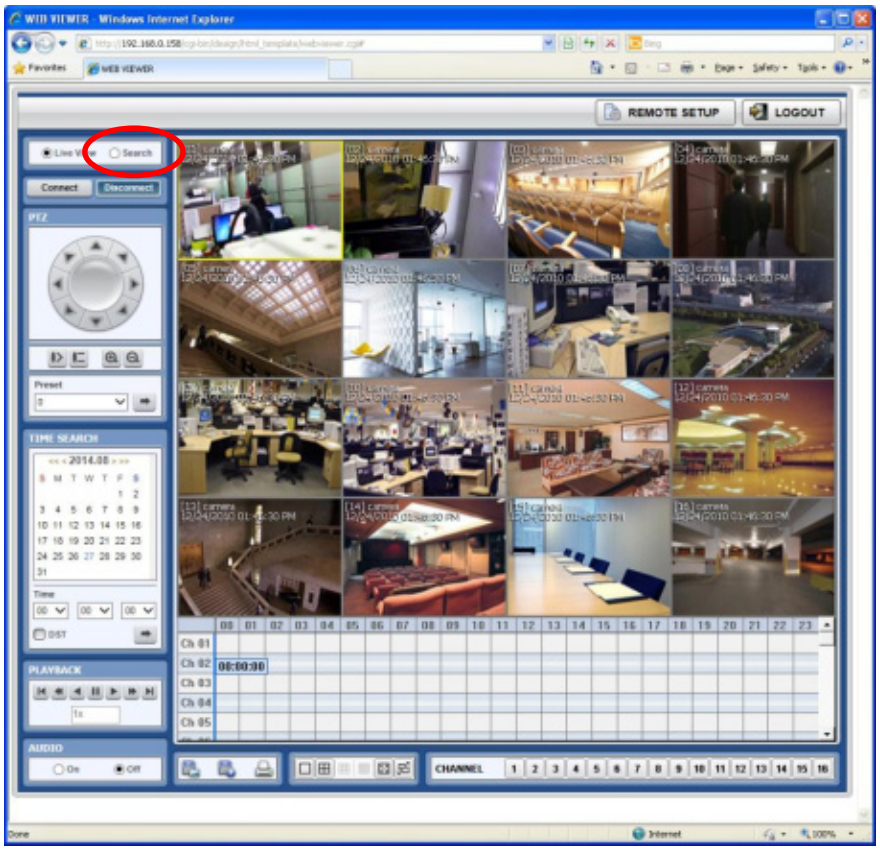
User can monitor live video in 1, 4, 9 or 16 screen modes. If user wants to see single channel in full screen, user can double-click on the left mouse button when the cursor is positioned on the live video screen. User can change to single mode by clicking the mode icon located at the bottom left.



NOTE If live image is not properly shown on IE web browser due to network traffic jam or narrow bandwidth, it is recommended to close and re-open the IE web browser.

5.4 Web Playback

Users can remotely playback the DVR images by clicking “SEARCH” button in the middle of bottom window. In order to connect to DVR, the user has to click “ Connect ” button which is located at the top left corner.



- **Playback Time**

Select the date and time on Time Search, located at the middle of left side of window, and click button.

- **Playback Icon**

Play/Pause is toggled and playback speed is shown on the left box.

- **Play DST**

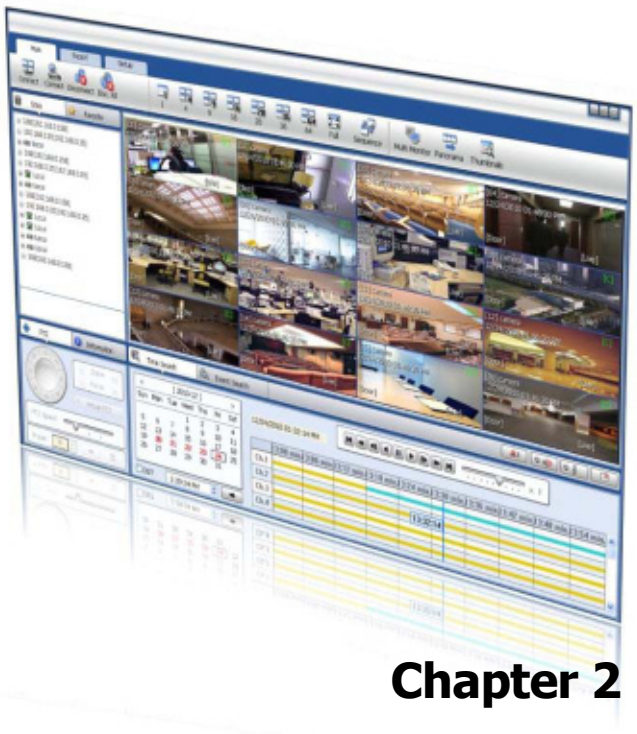
Check this box to play overlapped images during DST (Daylight Saving Time) period.

For further details, please refer to Section 3.7 (DST Setting and Image Playback)

- **Intelli-Search Bar**

User can move the blue vertical line to the time that user wants to search.

The colors of the time bar are different by each recording mode. Please, refer to Section 4.3.2 for details on color



Chapter 2

CMS CLIENT SOFTWARE USER MANUAL

6 CMS USER GUIDE

6.1 PC REQUIREMENT

Recommended PC Requirement

OS	Windows XP, Vista, 7
CPU	Pentium Dual core 1.8Ghz or higher
VGA	1024X768, 256MB supporting DirectX
RAM	1GB
HDD	20MB for installation, 10GB for Remote Backup

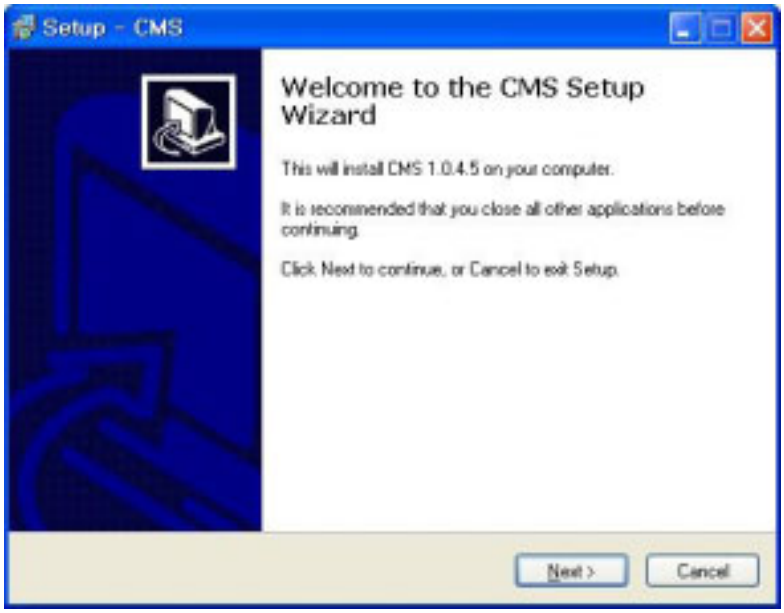
Minimum PC Requirement.

OS	Windows XP, Vista
CPU	Pentium 4, 2Ghz
VGA	1024X768, 64MB 24bit color graphic card
RAM	1GB
HDD	20MB Free Space

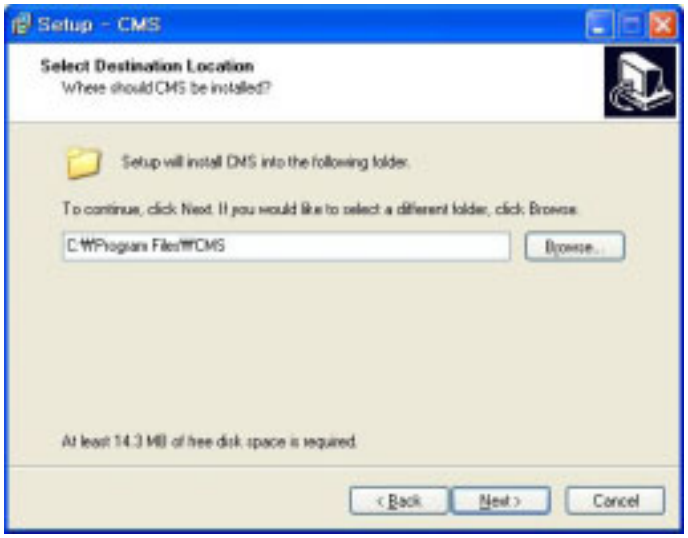
6.2 INSTALL

Run **Central Monitoring Software Setup.exe** saved on the included CD.

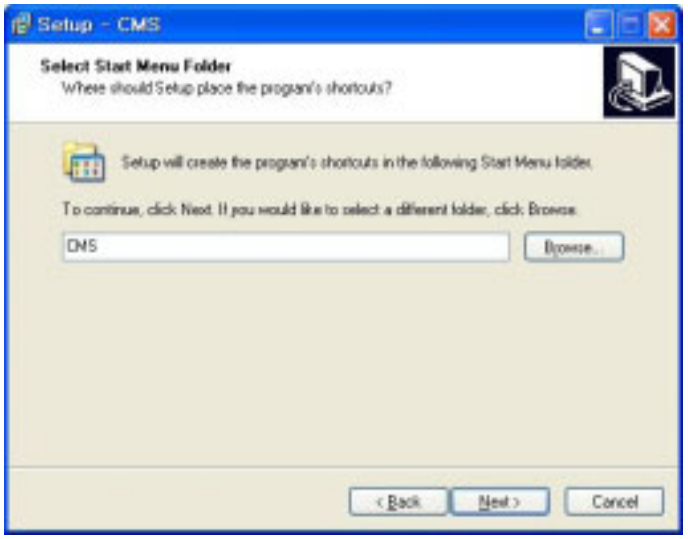
When clicked, the Setup Menu will appear.


Setup - CMS
Welcome to the CMS Setup Wizard
This will install CMS 1.0.4.5 on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
Next >
Cancel

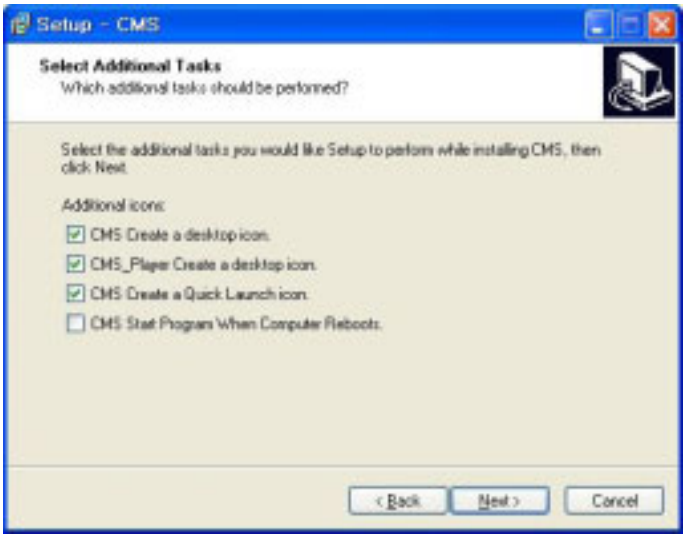
Press if you want to install the program in a different directory.


Setup - CMS
Select Destination Location
Where should CMS be installed?
Setup will install CMS into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\CMS
Browse...
At least 14.3 MB of free disk space is required.
< Back
Next >
Cancel

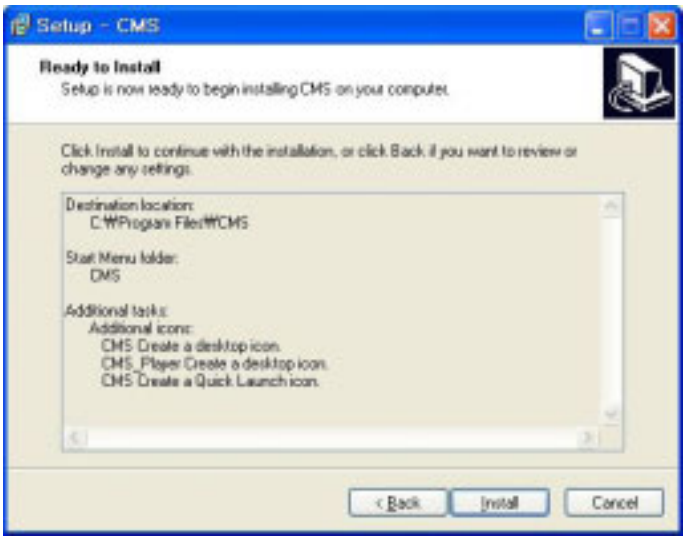
Press Next > to move to the next screen.


Setup - CMS
Select Start Menu Folder
Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
CMS
Browse...
< Back
Next >
Cancel

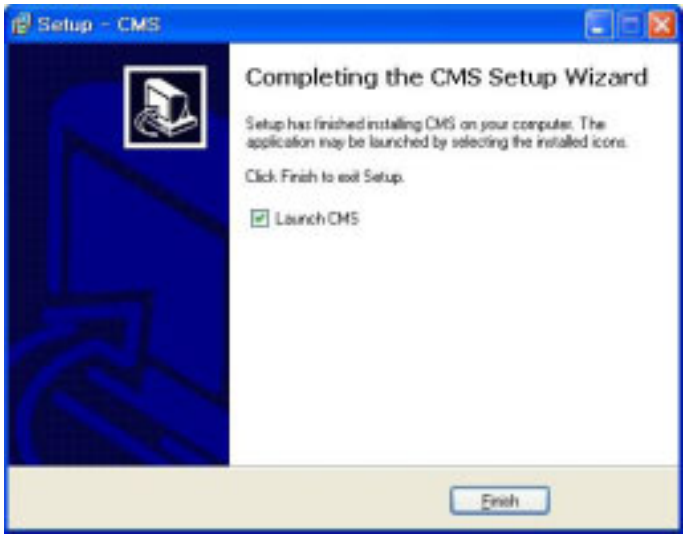
Press Next > to move to the next screen.


Setup - CMS
Select Additional Tasks
Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing CMS, then click Next.
Additional icons:
CMS Create a desktop icon.
CMS_Player Create a desktop icon.
CMS Create a Quick Launch icon.
CMS Start Program When Computer Reboots.
< Back
Next >
Cancel

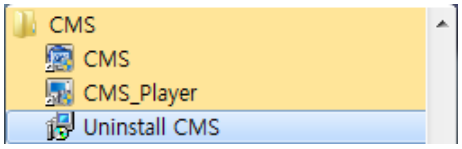
Press Next > to move to the next screen.


Setup - CMS
Ready to Install
Setup is now ready to begin installing CMS on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location:
C:\Program Files\CMS
Start Menu folder:
CMS
Additional tasks:
Additional icons:
CMS Create a desktop icon.
CMS_Player Create a desktop icon.
CMS Create a Quick Launch icon.
< Back
Install
Cancel

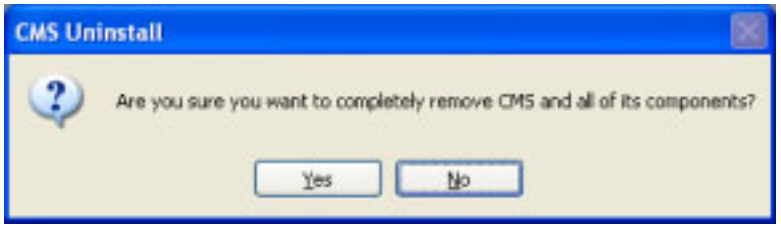
Click Install to begin installation. When the installation is complete, the below message will appear.


Setup - CMS
Completing the CMS Setup Wizard
Setup has finished installing CMS on your computer. The application may be launched by selecting the installed icons.
Click Finish to exit Setup.
Launch CMS
Finish

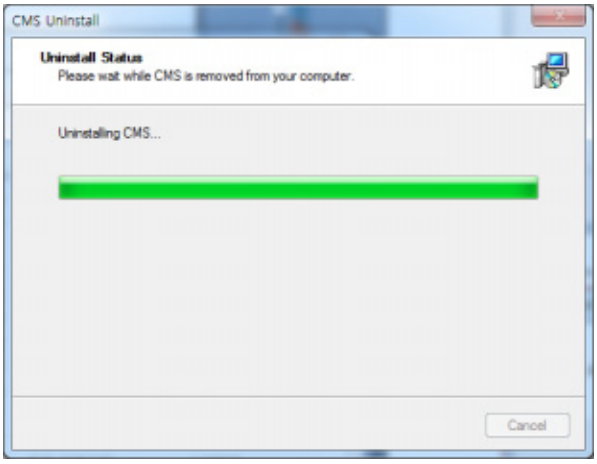
6.3 UNINSTALL



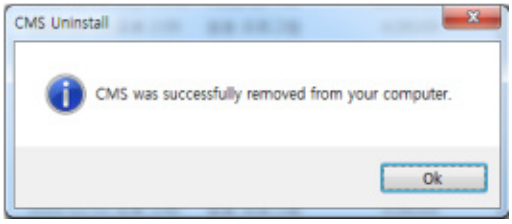
To uninstall CMS, press **UNINSTALL CMS** from Start Menu of your PC.



A window will appear in Windows7 or Windows Vista. Press **YES** to begin the process. The following window will appear.



When the process is complete, the below message will appear.



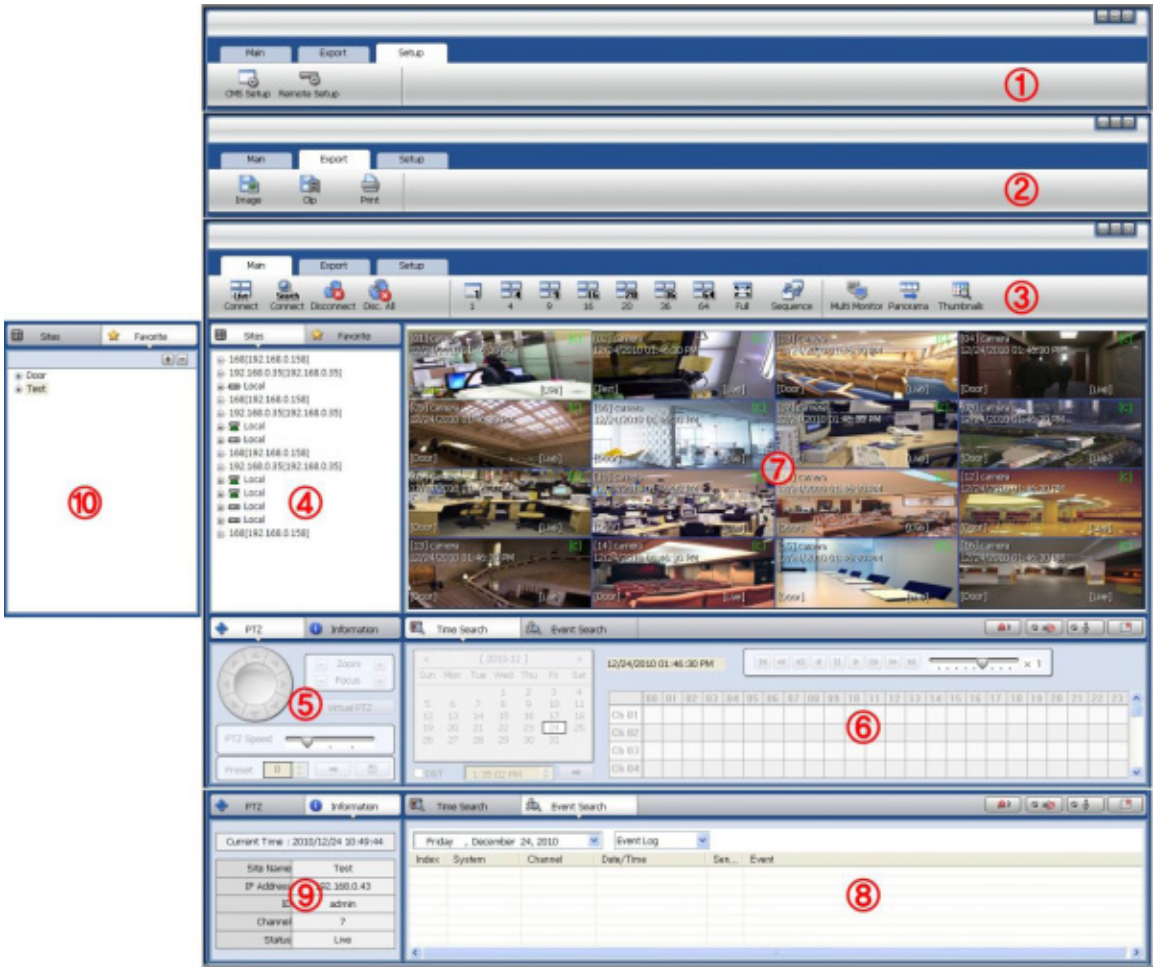
6.4 BASIC OPERATION

Click on **CMS** icon on Desktop or click **START** on Windows PC and go to CMS Folder.

6.4.1 Log In

The default ID is Administrator, and there is no default password so please leave it blank. The administrator account has the highest level of authority on the CMS.

6.4.2 Screen Layout



No	Item	Description
1	Main Toolbar (Setup Tab)	The Main Toolbar has three (3) selectable tabs named "Main", "Export" and "Setup". In the Setup tab, there are CMS setup and Remote setup.
2	Main Toolbar (Export Tab)	In the Export tab, able to save, AVI and Print the images.
3	Main Toolbar (Main Tab)	In the Main tab, able to connect Live and Search, disconnect, change display mode and sequence, Panorama Search and Thumbnail Search.
4	Site List Panel	All of the registered sites in the setup tab are shown in the site list. Simply drag and drop the desired site to the display screen to connect to the site.
5	PTZ Panel	Able to control a PTZ camera, in Live mode.
6	Search Panel	In the Search mode, the recording information per each channel will be displayed, when a specific date is selected in the calendar.
7	Display Panel	This is the area where live view and search view are displayed.
8	Event Search Panel	CMS also can receive all of events from DEVICE, and they are listed in this panel. An event data can be searched by double-clicking on an event.
9	Information Panel	Shows the current time and site information of the selected channel.
10	Favorite Panel	Create favorite site for quick access to the sites frequently viewed.

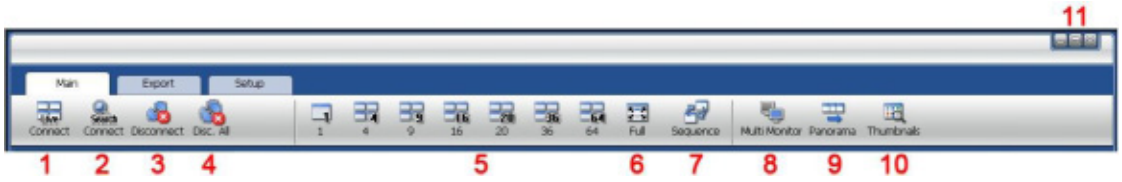
6.4.3 Main Toolbar (Setup)

No	Item	Description
1	CMS Setup	Register sites, setup for user authority, and setup other CMS properties.
2	Remote Setup	Access the setup menu of DEVICE remotely and change the settings.
3	Windows Exit	Minimize/Maximize the CMS Window or close the CMS program.

6.4.4 Main Toolbar (Export)

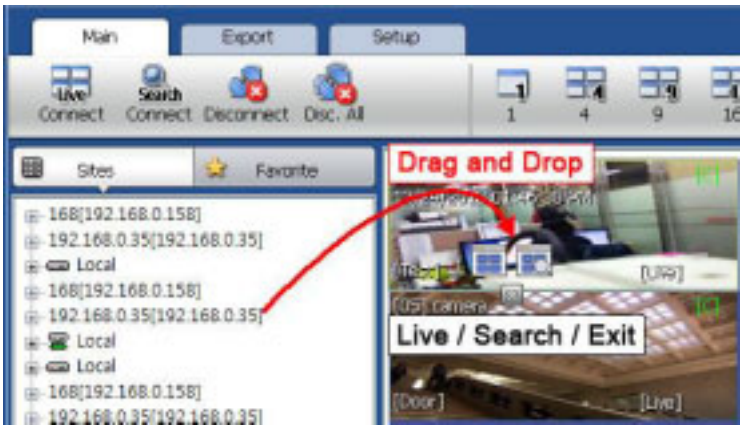
No	Item	Description
1	Image	Capture the image of the selected (focused) channel.
2	Movie	Save the selected channel in MP4 format movie file.
3	Print	Print the selected channel.
4	Windows Exit	Minimize/Maximize the CMS Window or close the CMS program.

6.4.5 Main Toolbar (Main)



No	Item	Description
1	Live	Connect to the selected site in the site list in Live mode.
2	Search	Connect to the selected site in the site list in Search mode.
3	Disconnect	Disconnect the selected single channel.
4	Disconnect All	Disconnect all of the connected sites and channels.
5	Display Mode	Change the display mode in single, 4 split, 9 split, 16 split, 20 split, 36 split, 64 split.
6	Full	Shows Full screen display.
7	Sequence	Sequences the different channel displays.
8	Multi Monitor	Create an additional display window.
9	Panorama	Able to show frame by frame display for a selected single channel in Search mode.
10	Thumbnails	Thumbnail search for a selected single channel in Search mode.
11	Windows Exit	Minimize/Maximize the CMS Window or close the CMS program.

6.4.6 Site List Panel



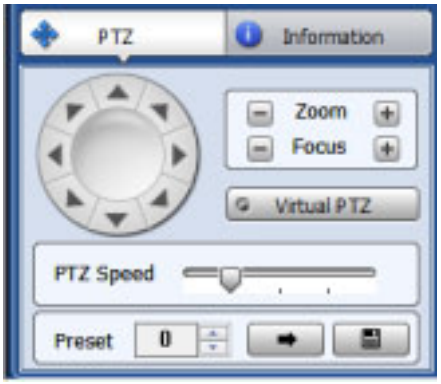
The Site List displays all of the DEVICE that are currently setup for remote connection with the CMS application, and its cameras are available for view.

From the Site List Panel, select the desired camera and drag it on to the viewing area. Then, select the options Live or Search ( ).

If an DEVICE site is dragged onto the viewable area, then the selected Device or all cameras from the DEVICE will display.

6.4.7 PTZ control panel

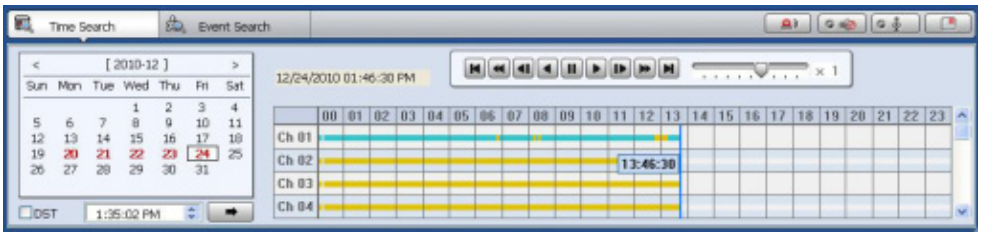
PTZ camera control is only available in Live mode.



No.	Button	Description
1	Navigation Key	8 directional arrows allow the user to move the PTZ camera. The PTZ Camera is moved when one of these arrows are pressed to the direction desired, and stops the movement if mouse button is released.
2	Zoom	Zoom In and Zoom Out.
3	Focus	Adjust the focus of PTZ camera.
4	Virtual PTZ	If Virtual PTZ is activated, able to control PTZ camera such as movement, Zoom and Focus. PTZ can be controlled by clicking mouse on channel screen directly.
5	PTZ Speed	Adjust PTZ camera response speed. Getting Slower as moves to the right.
6	Preset	Set PTZ presets on current view.
7		Go to the preset location.
8		Save the preset location.

6.4.8 Search Panel

The Search panel is activated only in Search mode.



When you connect to a site in Search mode, the date is highlighted in Red color in the calendar, if the recorded data exist. Select a specific date in the calendar and then recording information will be shown in the table.

(Go button) should be pressed to start playback from the selected time.

If DST is enabled, the earlier one-hour overlapped video will be shown first.

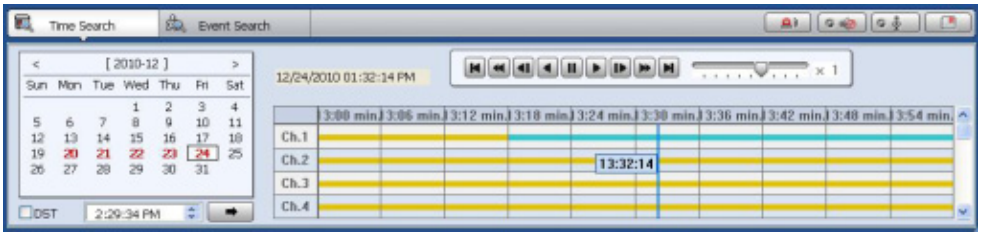
Each record mode is similar to below.

No Record	White
Continuous (Yellow Color)	
Panic (Red Color)	
Alarm (Orange Color)	
Motion (Green Color)	

Click the time or move the time bar to the time you want to playback in the search panel.

For a more detailed search like below, double-click the time that you want to jump into.

Detailed search is available on a 6 minute basis like below.



Playback Control Panel

No.	Button	Description
1		Go to First.
2		Forward Playback : Decrease the speed / Reverse Playback : Increase the speed.
3		Step Forward.
4		Reverse Playback.
5		Pause.
6		Forward Playback.
7		Step Backward.
8		Forward Playback : Increase the speed / Reverse Playback : Decrease the speed.
9		Go to Last.

Audio control

Relay: Turn On or Off for Relay.

Audio On/Off: Turn On or Off for Audio channel.

Two-way Audio: Two-Audio between CMS and DEVICE.

Bookmark: Bookmark the selected channel to the bookmark list.

6.4.9 Display Panel

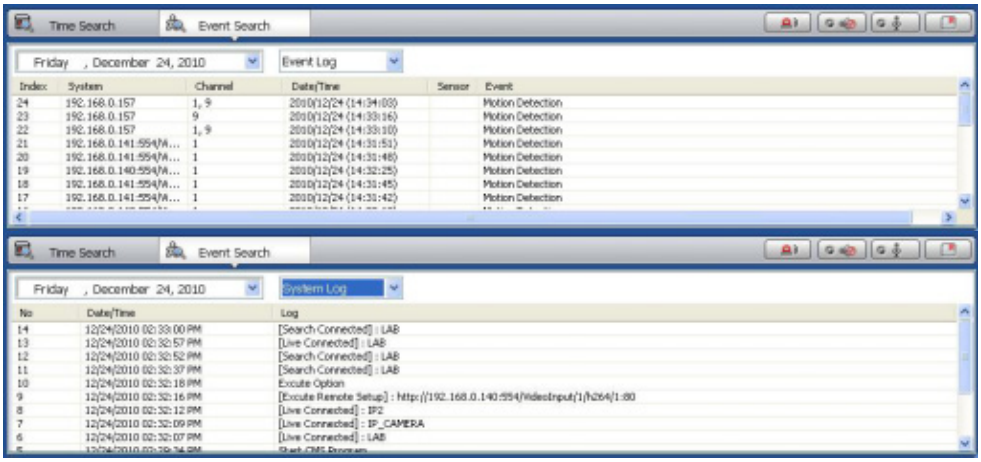
In live mode, the text LIVE will be displayed in white, and the channel will be bordered in blue.

In search mode, the text SEARCH will be displayed in red, and the channel will be bordered in red.

The selected channel will be bordered in yellow. The site name will be shown at the lower left hand corner of the screen.

6.4.10 Event Search Panel

CMS can receive any event data from the DEVICE as shown below.


Time Search
Event Search
Friday , December 24, 2010
Event Log
Index System Channel Date/Time Sensor Event
24 192.168.0.157 1, 9 2010/12/24 (14:34:03) Motion Detection
23 192.168.0.157 9 2010/12/24 (14:33:16) Motion Detection
22 192.168.0.157 1, 9 2010/12/24 (14:33:10) Motion Detection
21 192.168.0.141:554/M... 1 2010/12/24 (14:31:51) Motion Detection
20 192.168.0.141:554/M... 1 2010/12/24 (14:31:48) Motion Detection
19 192.168.0.140:554/M... 1 2010/12/24 (14:32:25) Motion Detection
18 192.168.0.141:554/M... 1 2010/12/24 (14:31:45) Motion Detection
17 192.168.0.141:554/M... 1 2010/12/24 (14:31:42) Motion Detection
Time Search
Event Search
Friday , December 24, 2010
System Log
No Date/Time Log
14 12/24/2010 02:33:00 PM [Search Connected] : LAB
13 12/24/2010 02:32:57 PM [Live Connected] : LAB
12 12/24/2010 02:32:52 PM [Search Connected] : LAB
11 12/24/2010 02:32:37 PM [Search Connected] : LAB
10 12/24/2010 02:32:18 PM Excute Option
9 12/24/2010 02:32:16 PM [Excute Remote Setup] : http://192.168.0.140:554/VideoInput/1/h264/1:80
8 12/24/2010 02:32:12 PM [Live Connected] : IP2
7 12/24/2010 02:32:09 PM [Live Connected] : IP_CAMERA
6 12/24/2010 02:32:07 PM [Live Connected] : LAB

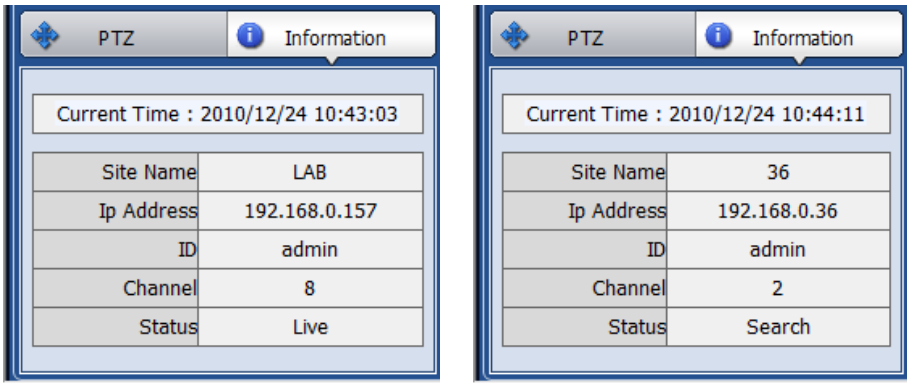
You can select a desired date to view the event list of the selected date.

You can choose either event log or system log.

Start the playback by double-clicking the Index number of each even list.

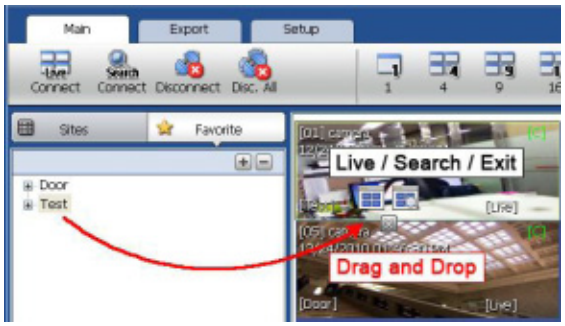
System log shows CMS start/end, live/search, option, remote setup, image/movie export etc.

6.4.11 Information Panel



The current date/time, site name, IP address, ID, channel and Live/Search status will be shown.Favorite Panel

Cameras currently displayed on the screen can be added, deleted and edited as a favorite site group.

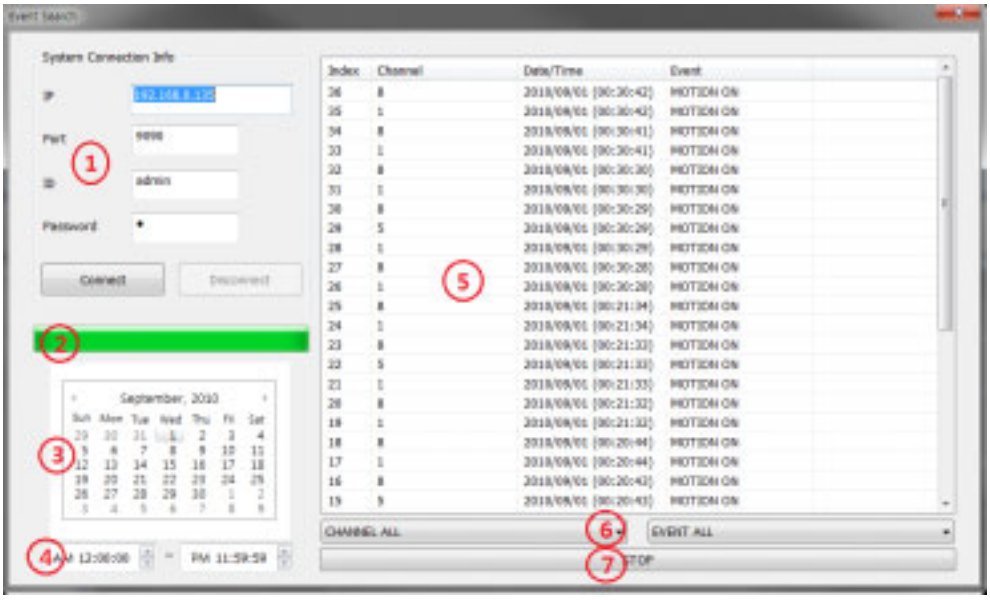


Place cameras of DEVICE site into a desired channel location of the screen and then click to create a new favorite site group. Then, you can simply place those cameras on the same channel location by drag & drop as shown below. In order to delete the favorite site, click to delete it.

6.5 CMS FUNCTIONS

6.5.1 Event Search

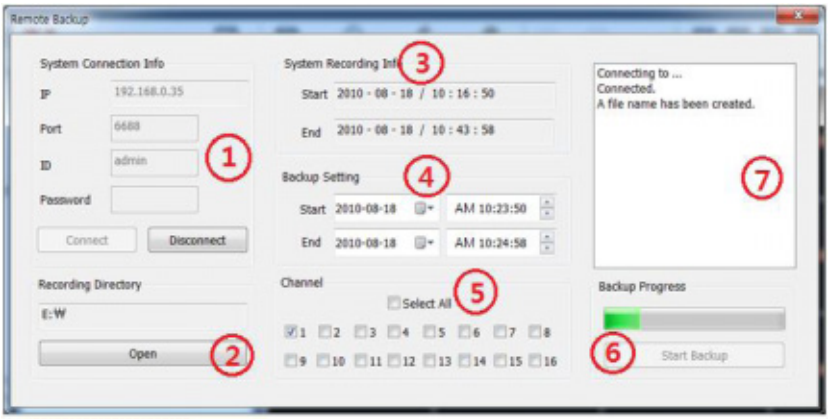
When you right click on a site in the site list, the quick access menu will be shown.
Select **EVENT SEARCH** to run Event Search.



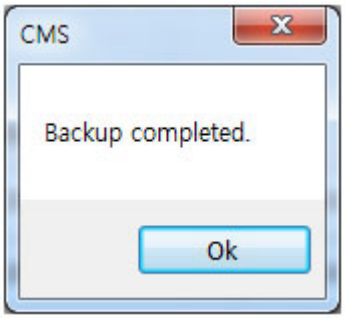
No	Item	Description
1	System Connection Info	Input the information of DEVICE to connect.
2	Event Download Status	Right after connecting to DEVICE, event information will be downloaded automatically. The download progress bar will be shown.
3	Calendar Search	If there is an event in the selected date, the date is highlighted. Select a specific date to start event search.
4	Interval Setup	Set the interval for event search.
5	Event List	The desired date is chosen, the event list of the desired date will be shown on the list.
6	Channel/Event Filter	Event information can be sorted by a channel or event type.
7	Start/Stop Search	Start/Stop Search button.

6.5.2 Remote Backup

When you right click on a site in the site list, the quick access menu will be shown.
Select **REMOTE BACKUP** to run Remote Backup.



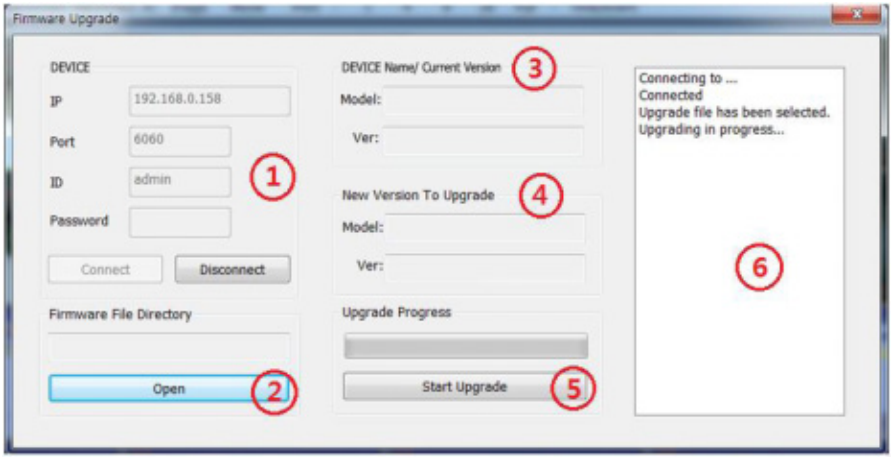
No	Item	Description
1	System Connection Info	Input the information of DEVICE to connect.
2	Recording Directory	Decide the recording directory to backup.
3	System Recording Info	Displays the start and end time of the recorded data in the system.
4	Backup Setting	Setup the start and end time of the data to backup.
5	Channel	Select the channel to backup.
6	Backup Progress	Backup Progress bar indicates the backup process status.
7	Backup Status Window	Displays the backup status in text message.



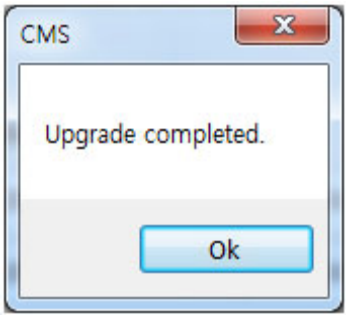
When the backup process is completed, "Backup Completed" message will appear.

6.5.3 Firmware Upgrade

When you right click on a site in the site list, the quick access menu will be shown.
Select **FIRMWARE UPGRADE** to run Firmware Upgrade.



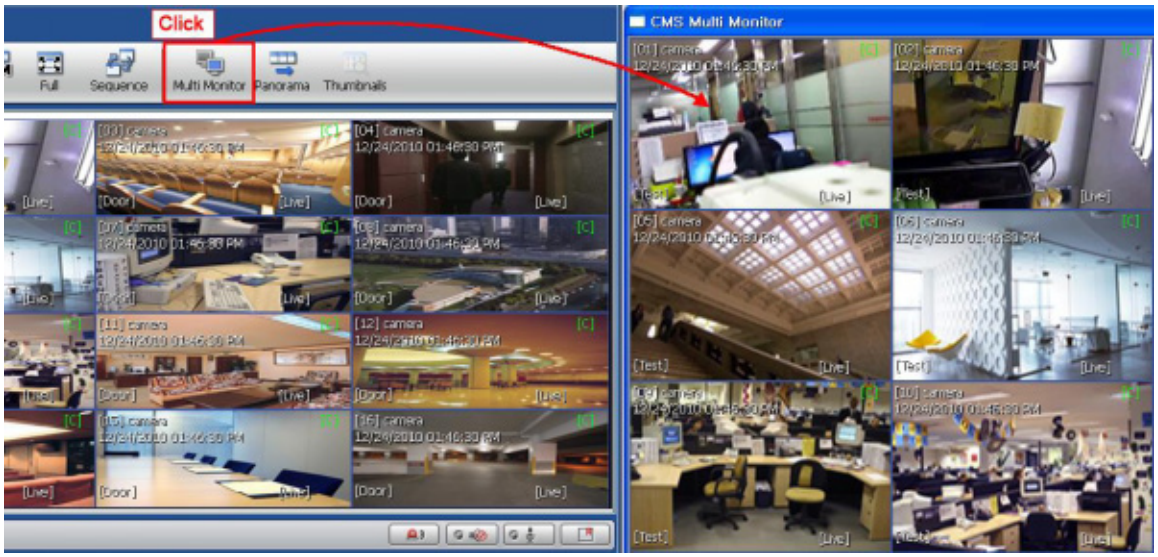
No	Item	Description
1	DEVICE Connection Info	Input the information of DEVICE to connect.
2	Firmware File Directory	Decide the firmware file directory to upgrade.
3	DEVICE Name/ Current Version	Displays the current DEVICE Name and Firmware Version.
4	New Version to upgrade	Displays the new DEVICE Name and Firmware Version.
5	Upgrade Progress	Start Upgrade and upgrade progress bar shows the upgrade progress status.
6	Upgrade Status Window	Displays the upgrade status in text message.



When the backup process is completed, “Backup Completed” message will appear.

6.5.4 Multi Monitor

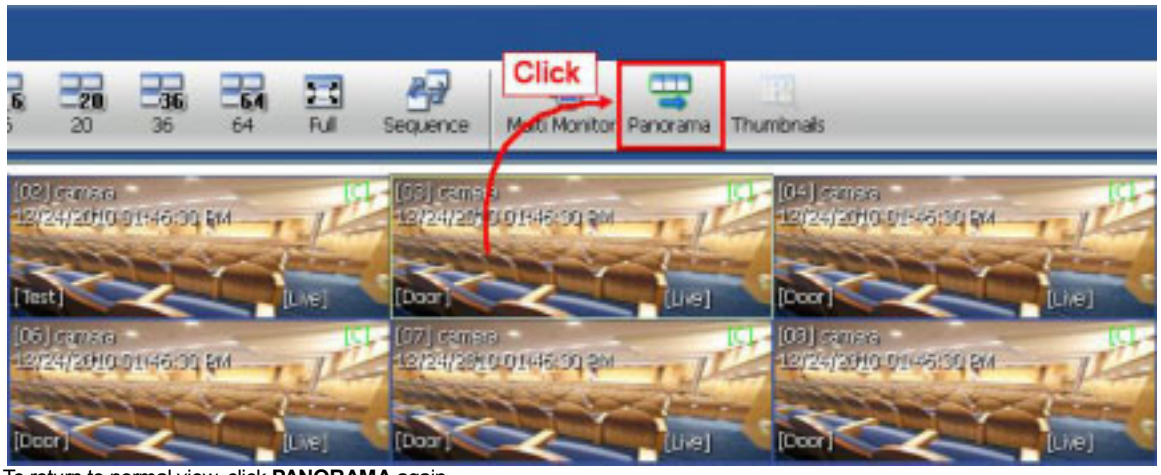
Click **MULTI MONITOR** in the Main Toolbar to run the Multi Monitor function.



When you click **MULTI MONITOR**, you will see another separate window with the same split display as the main window.

6.5.5 Panorama

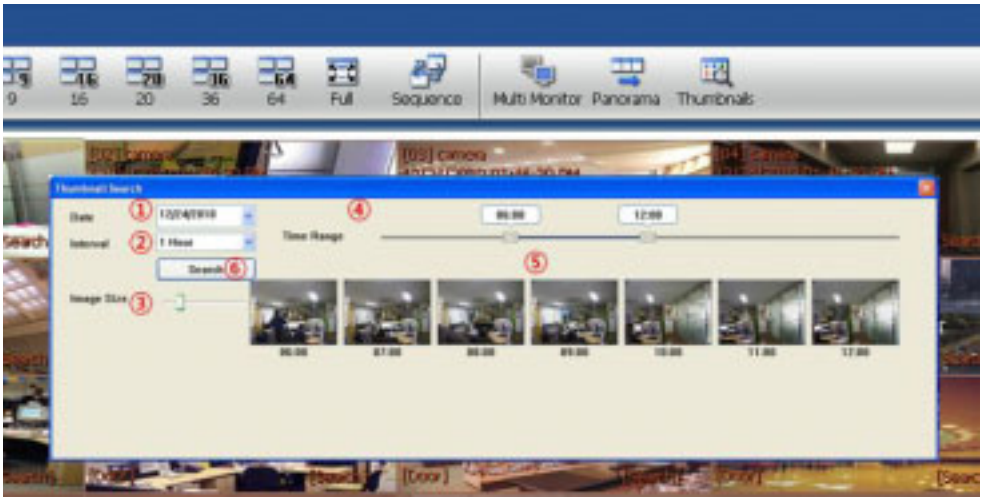
Click **PANORAMA** in the main tool bar to run Panorama View.
In Live mode or Search mode, the panorama shows frame by frame display of the selected single channel.



To return to normal view, click **PANORAMA** again.

6.5.6 Thumbnail Search

Click **THUMBNAIL** in the main toolbar to run Thumbnail Search. This feature is only available in Search mode. First select a channel and click **THUMBNAIL** then, you will see the Thumbnail Search window as shown below.



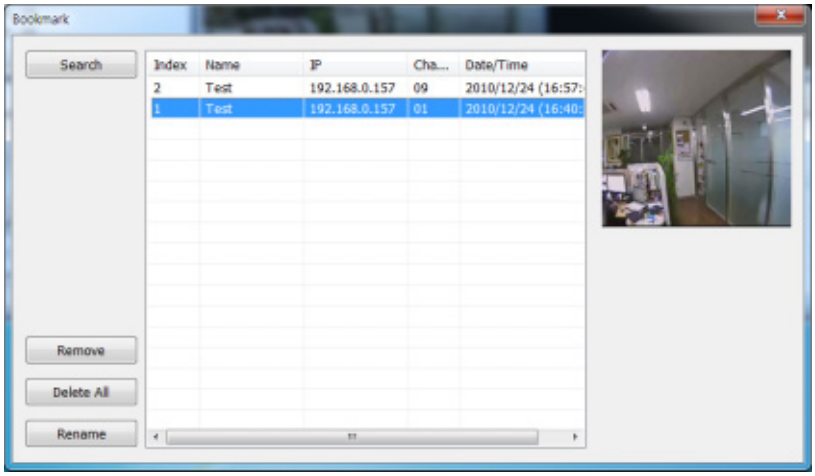
No	Item	Description
1	Date	Use the Calendar to select a desired date.
2	Time Interval	Select the Interval (time interval) which displays still shots by a specified time. You may choose 1min, 3min, 5min, 10min, 30min, and 1hour (ex. 1min. means 1 still shot per 1 minute of recorded video data.)
3	Image Size	Adjust the Thumbnail Image size by using the slide bar. Moving the slide bar to the right will increase the image size, and moving it to the left will decrease image size.
4	Time Range	Select the Time range (start time and end time) by using the slide bar.
5	Thumbnail images	Thumbnail images will be shown.
6	Search	Search button.

If you click each thumbnail image, you can search the selected data directly.

6.5.7 Bookmark

Click icon to bookmark the selected one channel search data.

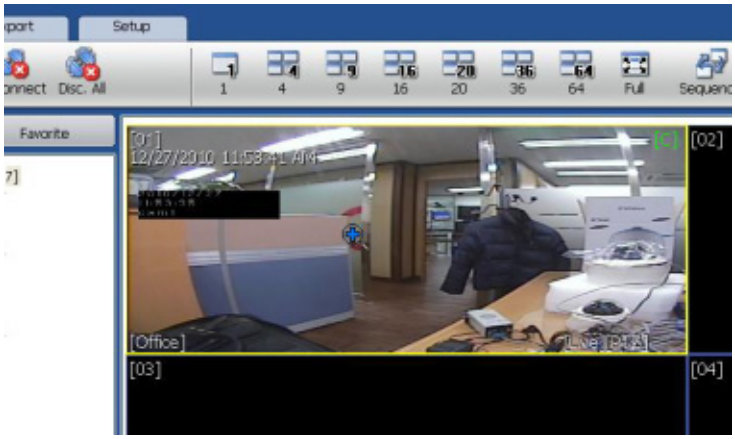
Once the selected search data is bookmarked, the bookmark data is listed with an image in the bookmark list as shown below.



Select a bookmark list and click search or double click the bookmark list to search the bookmarked data.
Click **REMOVE** button to remove a selected bookmark list and click **DELETE ALL** to delete all of bookmark list.
Click **RENAME** to rename the selected bookmark list.

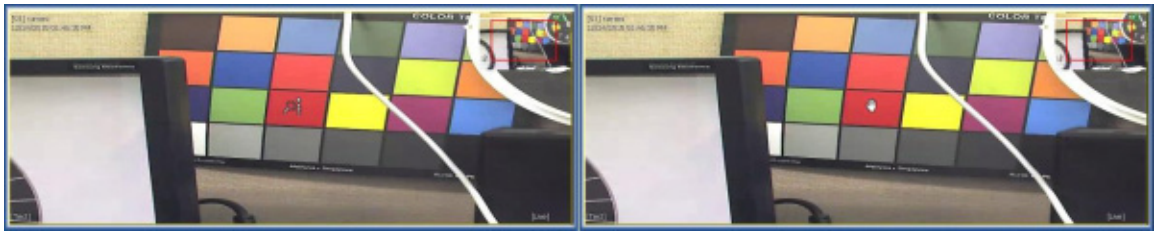
6.5.8 Virtual PTZ

If a PTZ camera is selected, click 'Virtual PTZ' button to activate 'Virtual PTZ' function.
Then, you can control a PTZ camera by using mouse controls. For example, place the mouse cursor over the PTZ channel and left-click to the desired directions, then it moves to the directions.



6.5.9 Digital Zoom In/Out

In Live/Search mode, digital zoom can be activated in a single full screen mode by using a mouse wheel. Scroll up the mouse wheel, and then you can zoom in. Scroll down the mouse wheel, and then you can zoom out the selected channel.

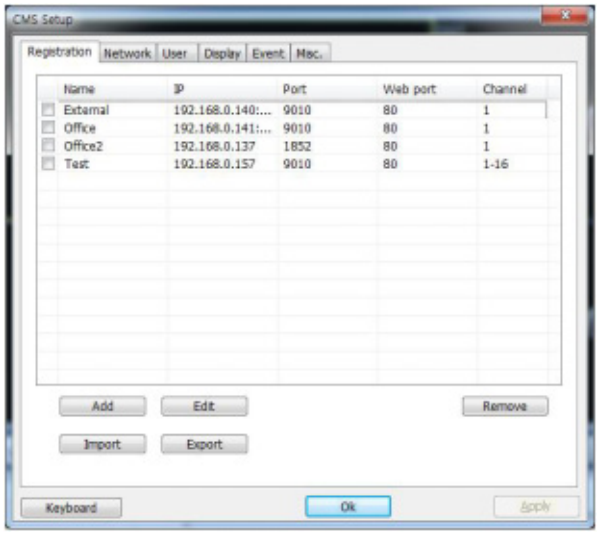


6.6 CMS SETUP

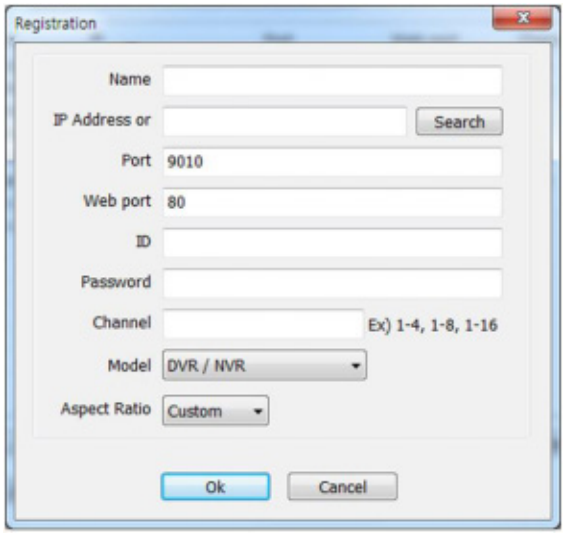
Options for DEVICE Registration, Network, User, Display, Event and other options.

6.6.1 Registration

Add, Modify, Import, Export or Remove DEVICE site information.



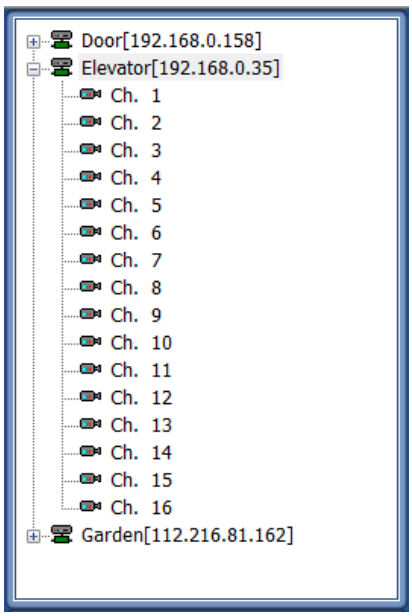
Ex) Adding a new DEVICE site.



No	Item	Description
1	Name	The name of the site.
2	IP	IP Address.
3	Search	Search the DEVICE sites in the same local network. (UPnP function)
4	Port	Port of the site. (Default: 9010)
5	Web port	Web Port of the site. (Default: 80)
6	ID	User ID of the site.
7	Password	Password of the site.
8	Channel	Number of channel of the site. (for example: 16ch DEVICE: 1-16 or specifically: 1,3,5,7,9)
9	Model	Select a DEVICE or Device's model name.
10	Aspect Ratio	Select the displayed Aspect Ratio (Custom, 1:1, 4:3, 16:9)

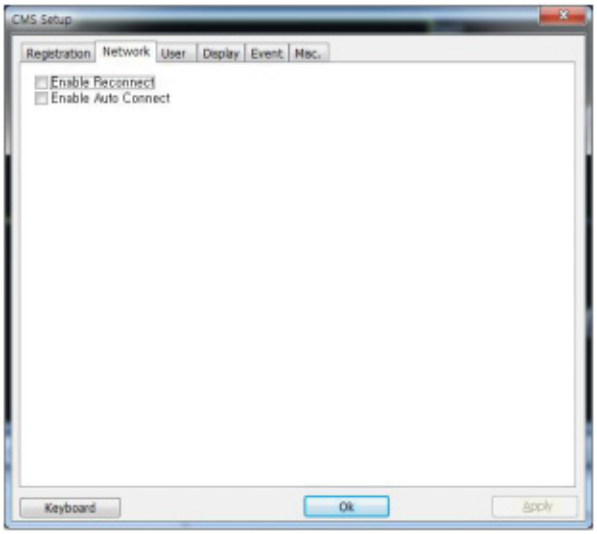
To modify and/ or remove DEVICE information, click ADD or REMOVE to amend DEVICE site information.
Able to export the current site list and save as a file or import the file to the site list.

Once the new DEVICE site is added, the new DEVICE information will be displayed at DEVICE site panel as shown below.



6.6.2 Network

Able to setup RECONNECT and AUTO CONNECT in this tab.

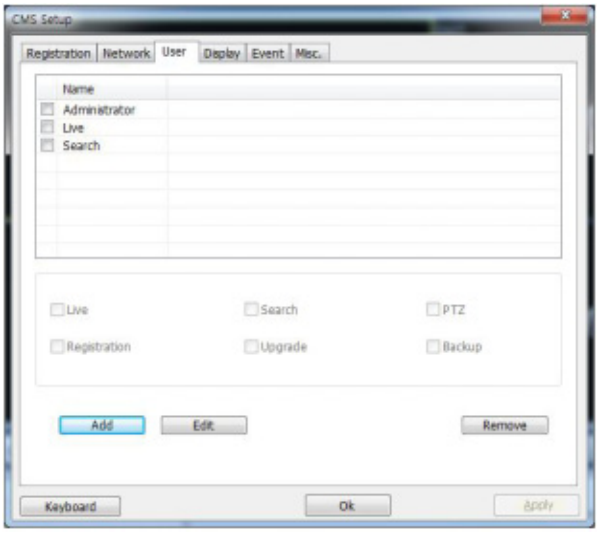


Enable Reconnect: When the network is unstable or disconnected, it will try to reconnect periodically. When the network gets stable again, it's reconnected.

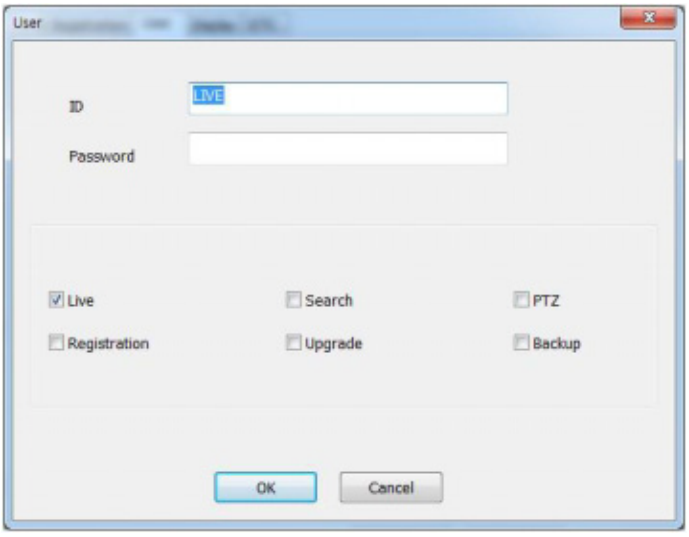
Enable Auto Connect: When you restart the CMS program again, after CMS is closed, it will reconnect to the sites just as before.

6.6.3 User

User authority can be changed by Administrator. "admin" is the built-in account for administrating the DEVICE and CMS program.



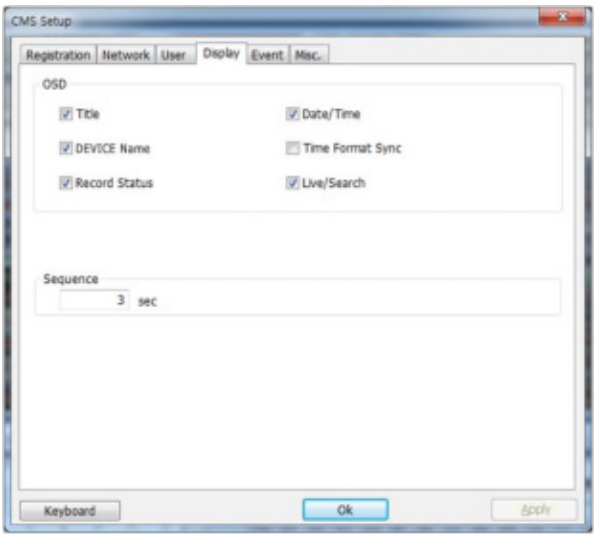
Ex) User authority change



User authority can be changed by Administrator. ID cannot be changed but should be removed.

6.6.4 Display

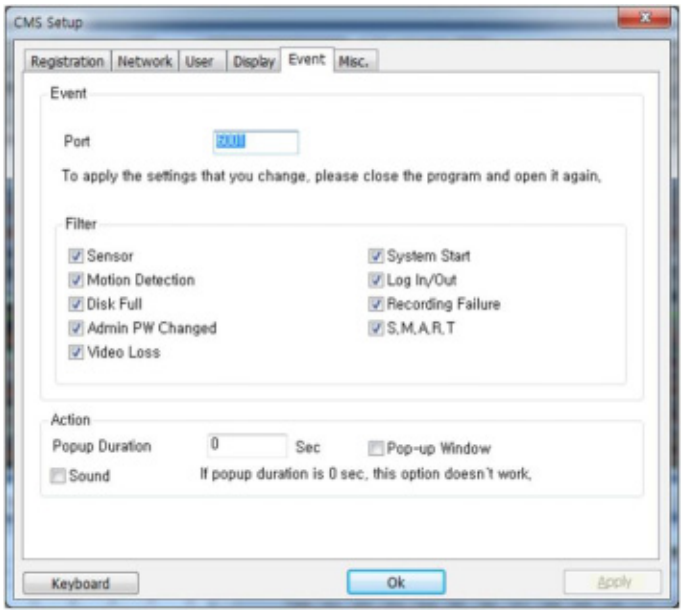
Options for OSD setting



Title: Able to turn on/off the DEVICE title with the channel number.
Date/Time: Able to turn on/off the Date/Time of the site.
DEVICE Name: Able to turn on/off the name of the site.
Time Format Sync: Synchronize the DEVICE time format to CMS.
Record Status: Able to turn on/off the Record Status of the site.
Live/Search: Able to turn on/off the Live/Search of the site.
Sequence: Able to set Sequence interval.

6.6.5 Event

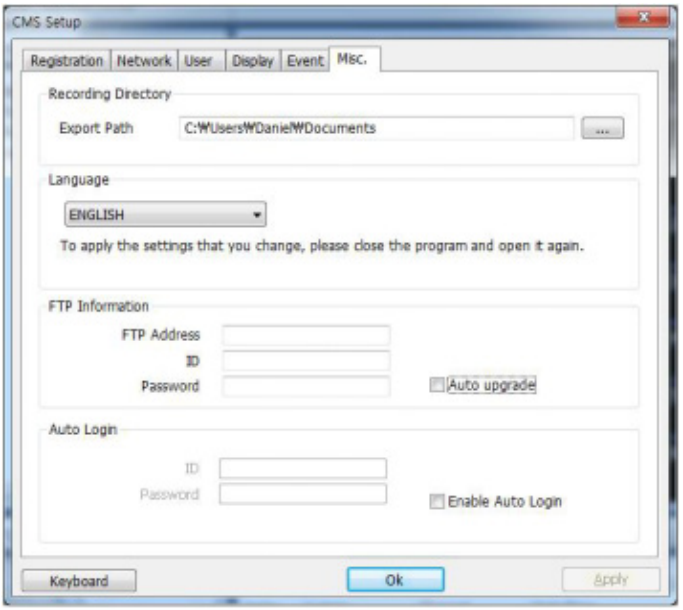
Setup the event port, event type and popup settings for event.



No	Item	Description
1	Port	Input the same event port number of DEVICE setting to receive event notification from the DEVICE.
2	Filter	Select the type of event to receive.
3	Action	Setup the popup duration and enable beep sound.

6.6.6 Misc.

Setup the Recording Directory, Language, Auto Upgrade, and Auto Login.



No	Item	Description
1	Recording Directory	Decide the recording directory to save images and moving images.
2	Language	Select a desired language.
3	FTP Information	In order to have Auto Upgrade, input FTP information. Once the FTP setup is done, CMS will detect the latest firmware is in the FTP and start upgrading automatically.
4	Auto Login	If you enable the auto login after inputting ID and Password, next time when you login, you don't need to type in the ID and Password again.

Chapter 3

MAC ACS CLIENT SOFTWARE USER MANUAL

7 MAC ACS USER GUIDE

7.1 System Requirement

Recommended System Requirement

OS	Mac OS X 10.6(snow leopard)
CPU	Built-in Intel CPU MAC
VGA	Recommended More than 128MB
RAM	Recommended More than 1GB
HDD	20MB Free Space

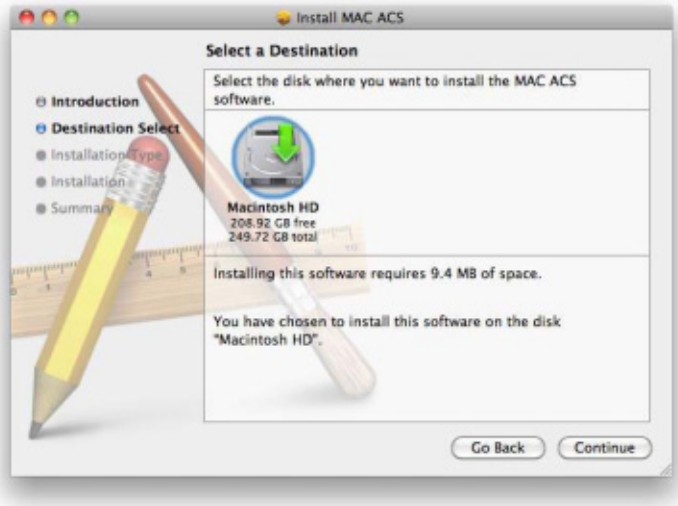
Minimum System Requirement.

OS	Mac OS X 10.5(Leopard)
CPU	Built-in Intel CPU MAC
VGA	64MB
RAM	512MB
HDD	20 MB Free space

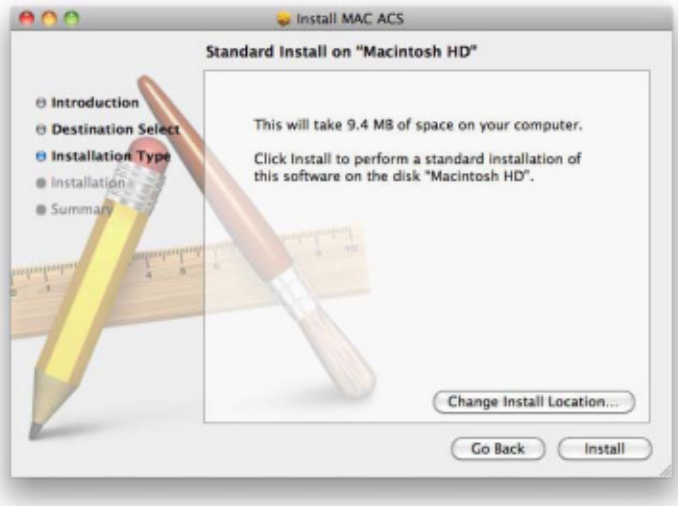
7.2 Install

a. Run MAC ACS.pkg on CD, and a Setup Menu appears as below.

b. Select the HDD to be installed. Press the [Continue] button to move to the next screen.

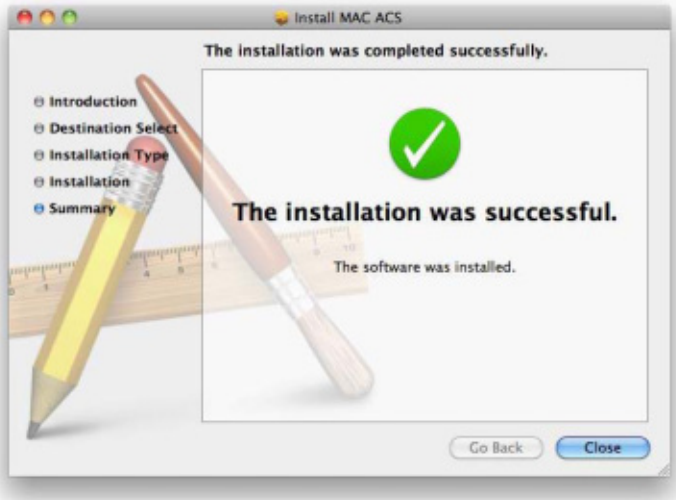


c. Press the [Continue] button to move to the next screen



d. Press the [Install] button to Install MAC ACS.

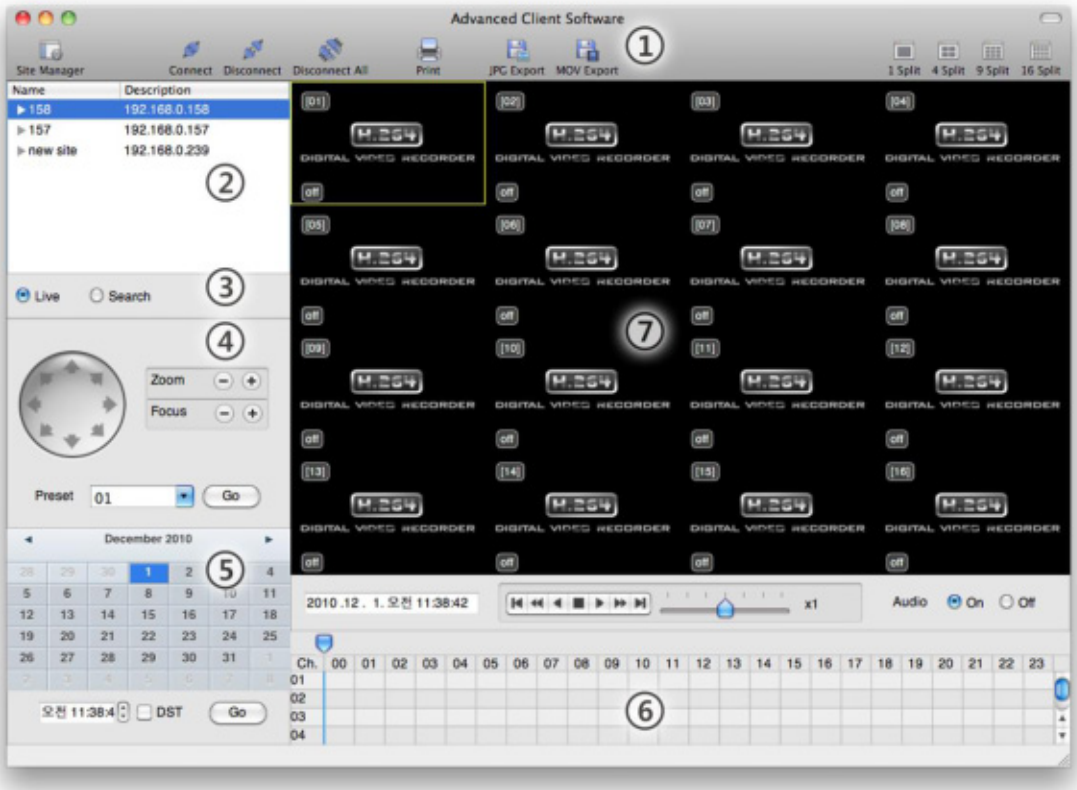
e. Put in the password and Click [OK] to begin installation. When the installation is complete, the message appears as below.



7.3 Basic Operation

Click on ACS icon on Application Folder

7.3.1 Screen Layout



No.	Item	Description
1	Main Toolbar	AVS Setting, Live and Search Connect, Disconnect, Image Save, Screen Mode and Change
2	DVR List Panel	Registered DVR Site List. Possible to connect by Dragging
3	Live or Search Connect Panel	Click Live or Search mode to connect the panel
4	PTZ Panel	PTZ Camera Control in Live mode
5	Calendar Panel	Search by Time and Date
6	Search Panel	Recorded information is shown in search mode. Control the speed of Playback and Audio as well
7	Display Panel	Transmitted Camera images are shown (Live and Playback)

7.3.2 Main Toolbar

No.	Button	Description
1	Site Manager	Register or Delete DVR on the list
2	Connect	Connect to a site that is listed on the DVR list panel (Select Live and Search mode at Connect Mode Panel)
3	Disconnect	Disconnect a selected channel
4	Disconnect All	Disconnect All Channels
5	Print	Print out still image
6	JPG Export	Save a selected image to the desktop as JPEG format
7	Movie Export	Save a selected video clip to the desktop as mov format
8	Split	Single Channel, 4-Split, 9-Split, 16-Split

7.3.3 Site List Panel

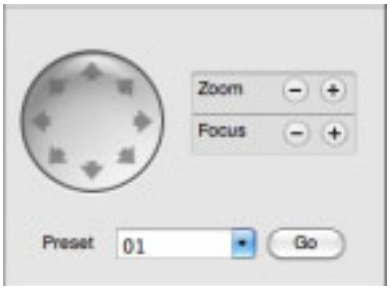
The site list panel shows registered DVR lists. To connect, Drag & Drop the site.

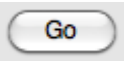
Before you connect the site, Select the Live or Search mode first in the connection mode panel.

16 different On-Screen DVR, a mixture of different connection modes can be monitored.

7.3.4 PTZ Panel

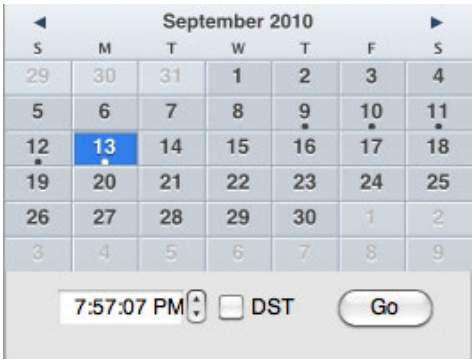
PTZ camera controls in Live Mode. PTZ Camera can control if the channel is activated on PTZ operation.



No.	Button	Description
1	Navigation Key	PTZ camera can be moved in 8 directions and Whenever click the direction key, it moves slowly.
2	ZOOM	Zoom In and Zoom Out
3	FOCUS	Adjust the focus of PTZ camera
4	PRESET	Select the preset location
5		Go to the preset location

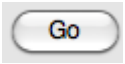
7.3.5 Calendar Panel

Activated in Search Mode



The recorded data will be shown in blue bold with the dot which is located below the number

When you click the recorded date on the search mode, the playback time will be detected automatically

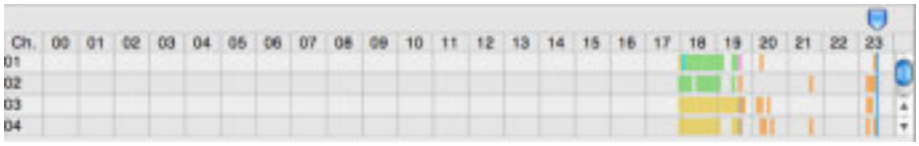


(Go Button) should be pressed to start playback from the selected date and time

If DST is enabled, the earlier one-hour overlapped video will be shown first.

7.3.6 Search Panel

Activated in Search Mode



- The Search panel shows the record information for each channel.

- Each record mode is like below.

No Record	Background Color
Continuous (Yellow Color)	
Panic(Red Color)	
Alarm(Orange Color)	
Motion(Green Color)	

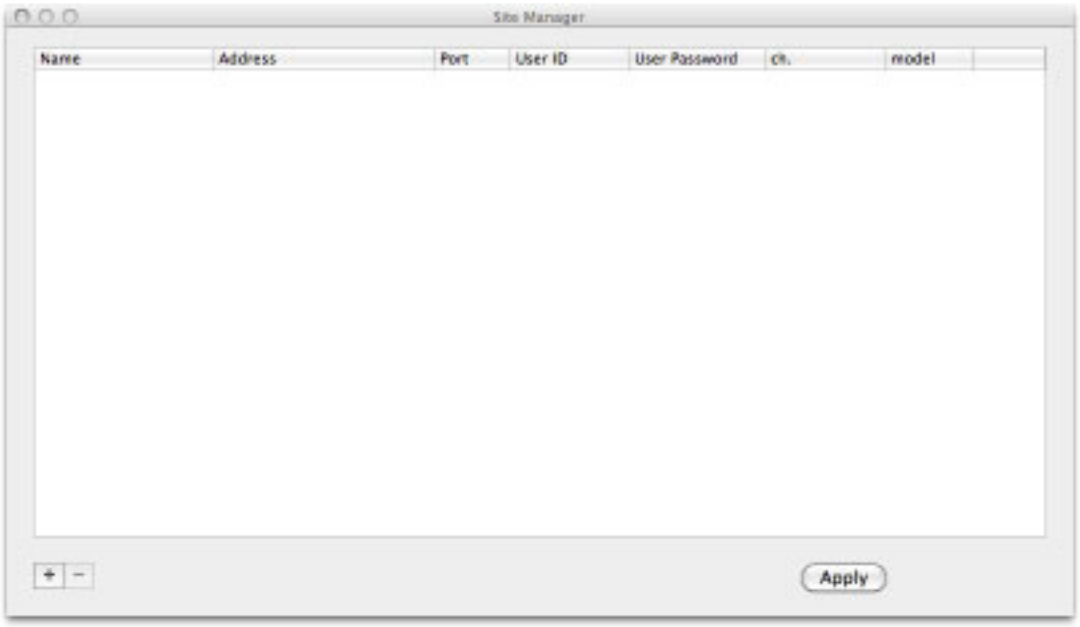
- Click the time or move the time bar to the time you want to playback in the search panel.

- Playback control panel

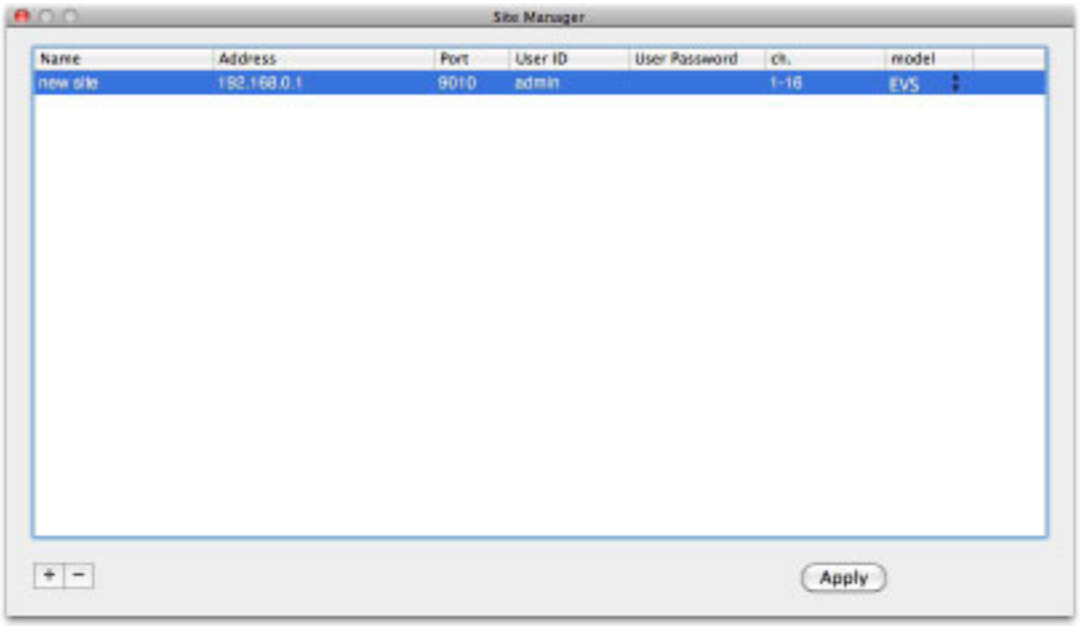
No	Button	Description
1		Go to first
2		Forward Playback : Decrease the Speed / Reverse Playback : Increase the Speed
3		Reverse Playback
4		Pause
5		Forward Playback
6		Forward Playback : Increase the speed / Reverse Playback : Decrease the speed
7		Go 10 seconds before the end of the data.

7.3.7 Site Manager

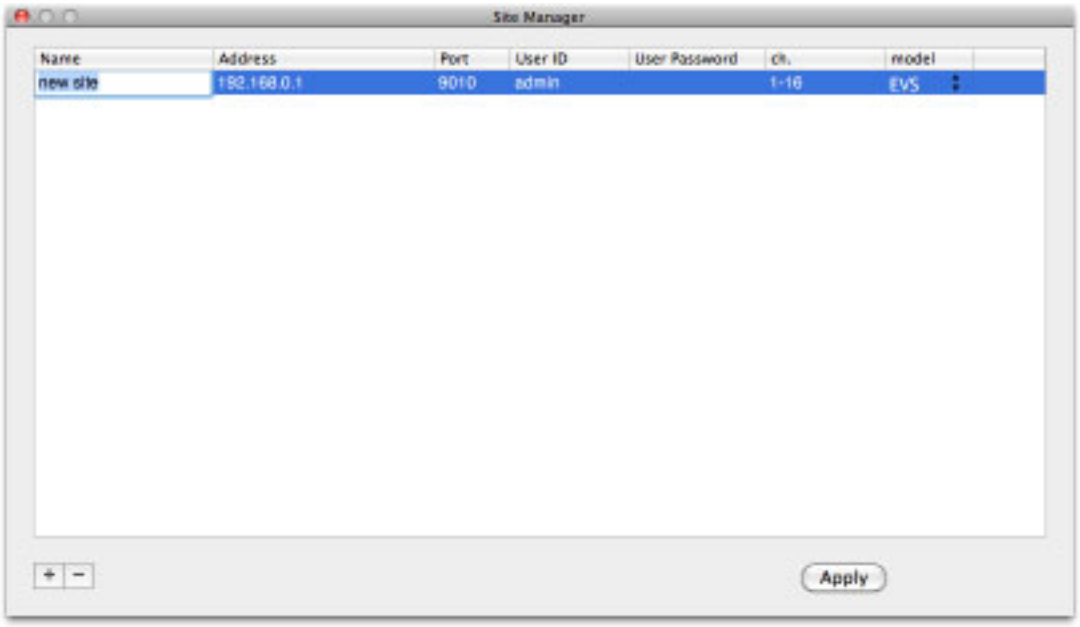
Add or Modify or Remove DVR site information.



Press + to register the DVR as follows : The default value is registered



To fix, Double-Click on the item. For example, Double-click " New Site " to change the name.



After modifications have been made, press Apply

No.	Function	Description
1	Name	Fill in the name of the site to be registered
2	IP	Fill in the IP of the site to be registered
3	Port	Fill in the PORT No of the site to be registered (Default 9010)
4	User ID	Fill in the ID of the DVR to be connected
5	User Password	Fill in the PW of the DVR to be connected
6	Ch.	Fill in channel of the site to be registered (ex, 16 Ch DVR: 1-16 or Registered by Camera : 1,3,5,7,9)
7	Model	Select Model name of the DVR to be registered

Please double click the items, if you want to change the item from the registered information.

If you want to delete the registered DVR information, Select the DVR and click −

After modifications have been made, press Apply

Chapter 4

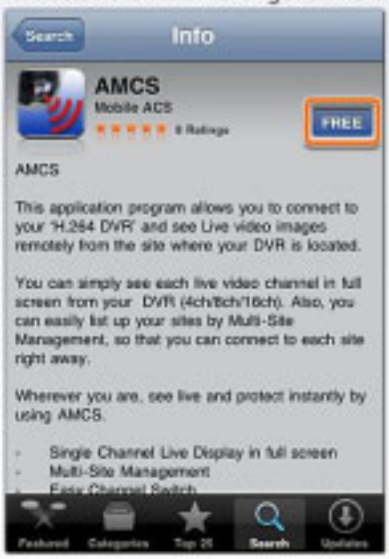
MOBILE PHONE SOFTWARE USER MANUAL

8 MOBILE PHONE SOFTWARE USER GUIDE

8.1 iPhone application software

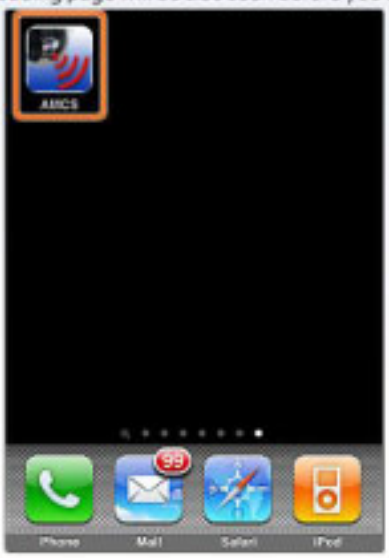
1 Installation Mobile ACS 2 3 4 5 6 7 8 9

3 Now you can see the detail information about the 'AMCS (Mobile ACS)' application.
Click 'FREE' button then it will change to 'INSTALL' button. Click 'INSTALL' button to proceed.


Search
Info
AMCS
Mobile ACS
FREE
AMCS
This application program allows you to connect to your 'H.264 DVR' and see Live video images remotely from the site where your DVR is located.
You can simply see each live video channel in full screen from your DVR (4ch/8ch/16ch). Also, you can easily list up your sites by Multi-Site Management, so that you can connect to each site right away.
Wherever you are, see live and protect instantly by using AMCS.
Single Channel Live Display in full screen
Multi-Site Management
Featured
Categories
Top 25
Search
Updates

Search
Info
AMCS
Mobile ACS
INSTALL
AMCS
This application program allows you to connect to your 'H.264 DVR' and see Live video images remotely from the site where your DVR is located.
You can simply see each live video channel in full screen from your DVR (4ch/8ch/16ch). Also, you can easily list up your sites by Multi-Site Management, so that you can connect to each site right away.
Wherever you are, see live and protect instantly by using AMCS.
Single Channel Live Display in full screen
Multi-Site Management
Featured
Categories
Top 25
Search
Updates

4 When mobile application is installed successfully, you will see the AMCS (Mobile ACS) icon on your iPhone and the loading page will be also seen before you connect to the mobile application after you click the icon.



1 2 How to connect and setup 3 4 5 6 7 8 9

1 Press "+" button to add desired device.

2 Fill in the new site information correctly and press "Save" button to save. For the model option, please choose "NVR".

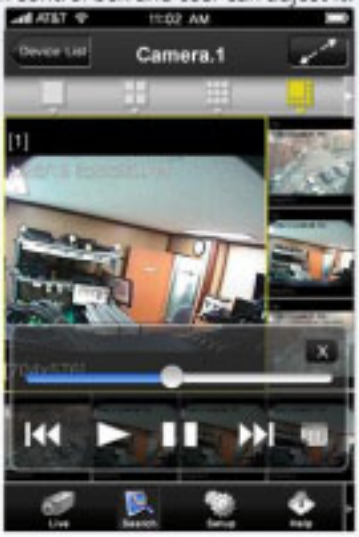
1 2 **3 How to connect and view** 4 5 6 7 8 9

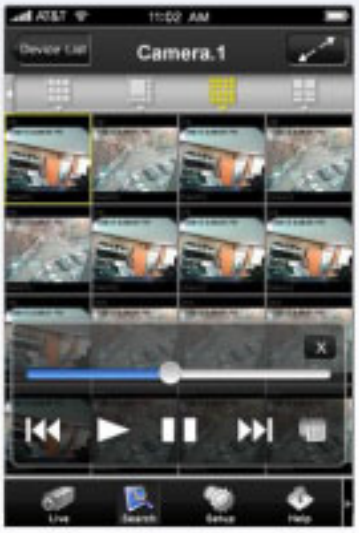
1 At first, select the desired device.
To see live view, press the live icon on the bottom of the screen.

2 User will have live screen view and can also select the desire layout.

1 2 3 **4 How to search** 5 6 7 8 9

1 Select Search icon after connecting the target device or press Search icon in live screen.
Up to 16 channels can be searched simultaneously. Time and date search is available by pressing calendar in control box and user can adjust it.





1 2 3 4 **5 Drag and Switch Function / Layout** 6 7 8 9

1 Drag / Switch Function : User can use Drag / Switch function to switch the screens.
User can see bigger picture of desired camera view.

2 Layout Function : User can select the desire layout.

1 2 3 4 5 **6 How to control PTZ control** 7 8 9

1 A single channel PTZ is simply controlled by using touch screen. First, PTZ control is available when selected channel is set for PTZ camera and PTZ control is available in full screen mode. PTZ camera can be moved into desired position by pressing directional arrow icons. Zoom In and Out can be controlled by + icon and – icon in center. In order to move the PTZ camera into desired position by Preset, user can selected pre-saved preset no in Preset Tab menu.

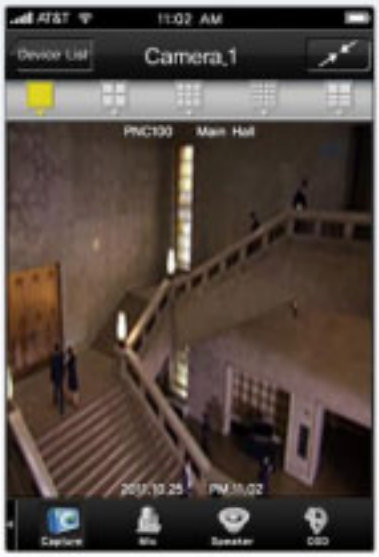
Pan/Tilt

Zoom In/Zoom Out

Preset

1 2 3 4 5 6 **7 Capture / 2 way audio function** 8 9

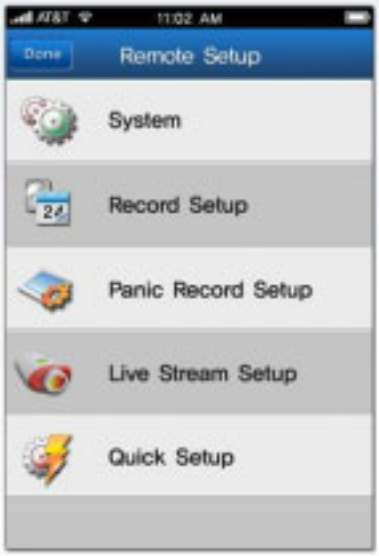
1 User can use Capture function by pressing Capture icon on the bottom of the screen.



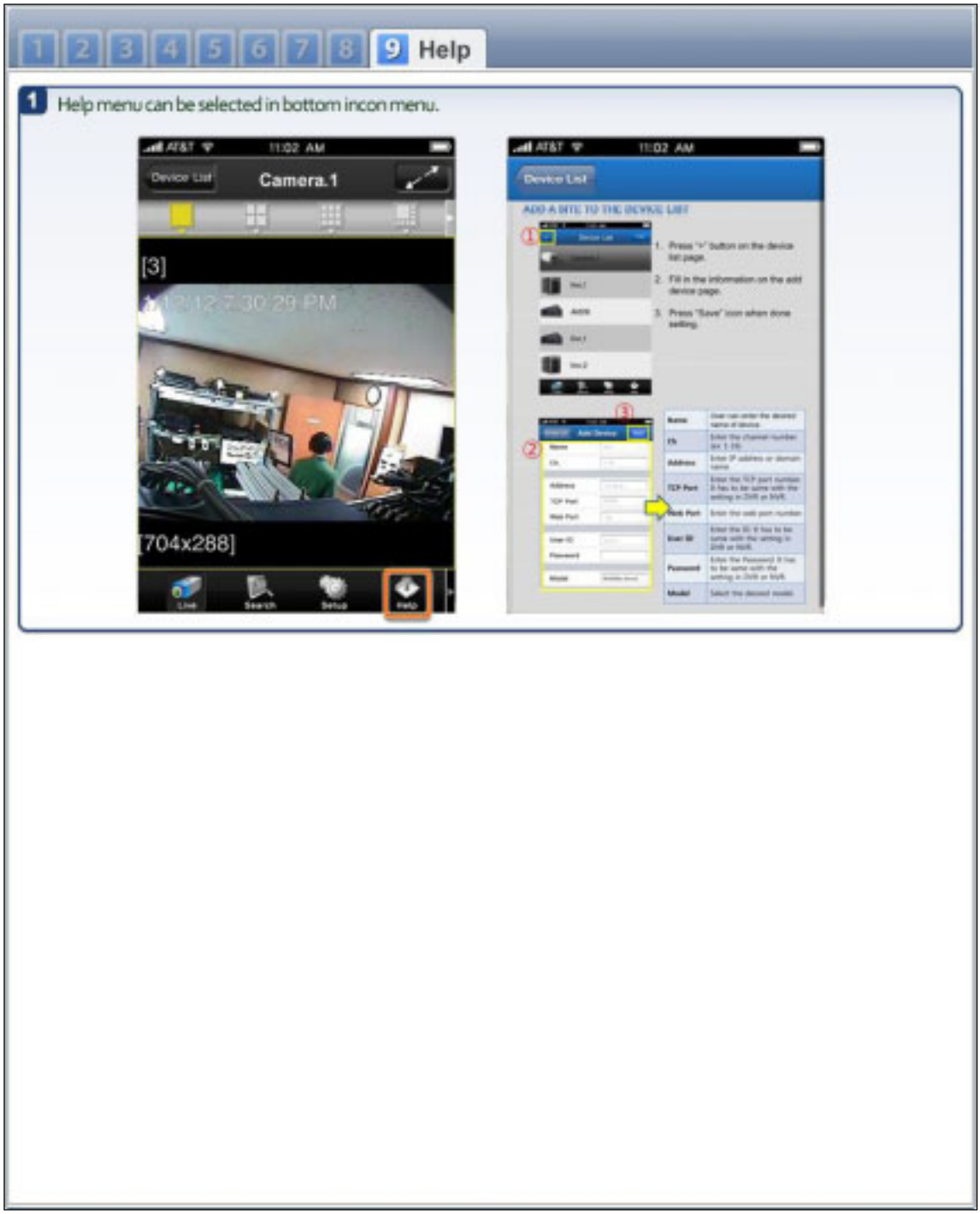
2 By using mobile application, 2 way audio is available. On the bottom of the screen, there are Mic and Speaker icons.

8 Setup / Display Camera Information

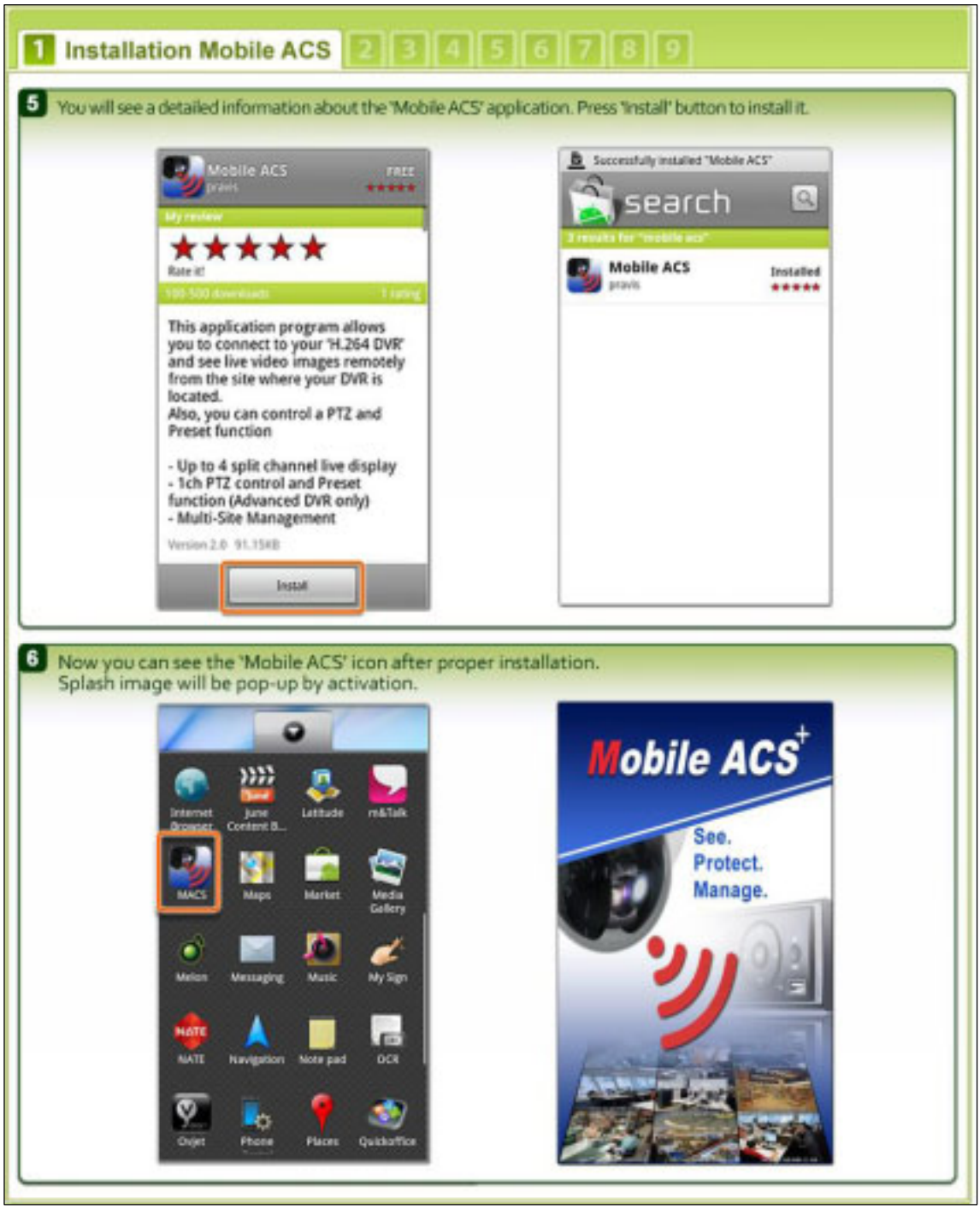
1 User can setup on the "Remote Setup" page. When you are done setting, press "Done" button.



2 Display Camera information : Camera name, Place, Date and Time.


1 2 3 4 5 6 7 8 9 Help
1 Help menu can be selected in bottom incon menu.
AT&T 11:02 AM
Device List
Camera.1
[3]
[704x288]
Live
Search
Setup
Help
AT&T 11:02 AM
Device List

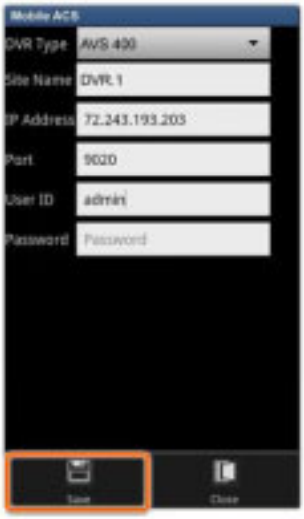
8.2 Android application software

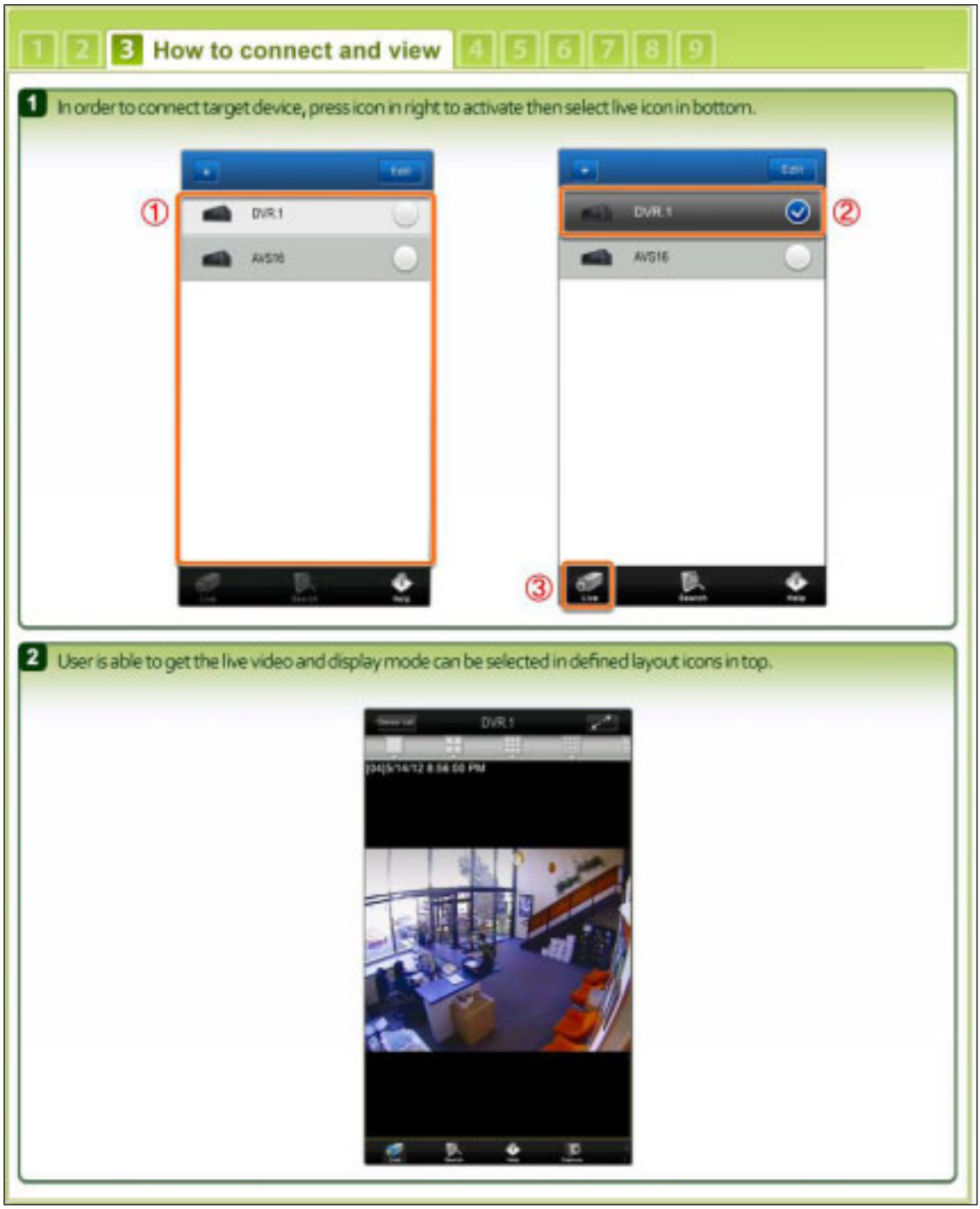

1 Installation Mobile ACS
2 3 4 5 6 7 8 9
5 You will see a detailed information about the 'Mobile ACS' application. Press 'Install' button to install it.
Mobile ACS
FREE
My review
Rate it!
This application program allows you to connect to your 'H.264 DVR' and see live video images remotely from the site where your DVR is located.
Also, you can control a PTZ and Preset function
- Up to 4 split channel live display
- 1ch PTZ control and Preset function (Advanced DVR only)
- Multi-Site Management
Version 2.0 91.15KB
Install
Successfully installed "Mobile ACS"
search
Mobile ACS
Installed
6 Now you can see the 'Mobile ACS' icon after proper installation.
Splash image will be pop-up by activation.
Mobile ACS+
See.
Protect.
Manage.

1 2 How to connect and setup 3 4 5 6 7 8 9

1 Press "+" button to add desired device then set-up menu will be pop-up automatically.

2 Fill in the new site information correctly and press "Save" button to save after selecting correct device.




1 2 3 How to connect and view 4 5 6 7 8 9
1 In order to connect target device, press icon in right to activate then select live icon in bottom.
①
DVR 1
AVS16
②
③
2 User is able to get the live video and display mode can be selected in defined layout icons in top.
DVR 1

1 2 3 **4 How to search** 5 6 7 8 9

1 Select Search icon after connecting the target device or press Search icon in live screen. Up to 16 channels can be searched simultaneously. Time and date search is available by pressing calendar in control box and user can adjust it.

1 2 3 4 **5 Drag and switch Function / Layout** 6 7 8 9

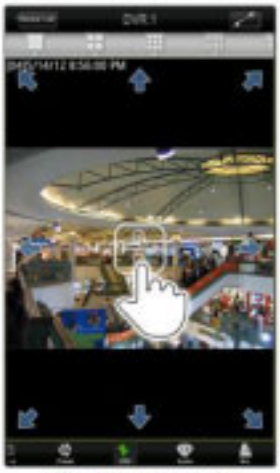
1 Drag / Switch : User can switching video position. Please drag the selected channel then drop it into desired window to switch.

2 Display Layout : Various display layout can be selected in icons in top.

1 2 3 4 5 **6 How to control PTZ control** 7 8 9

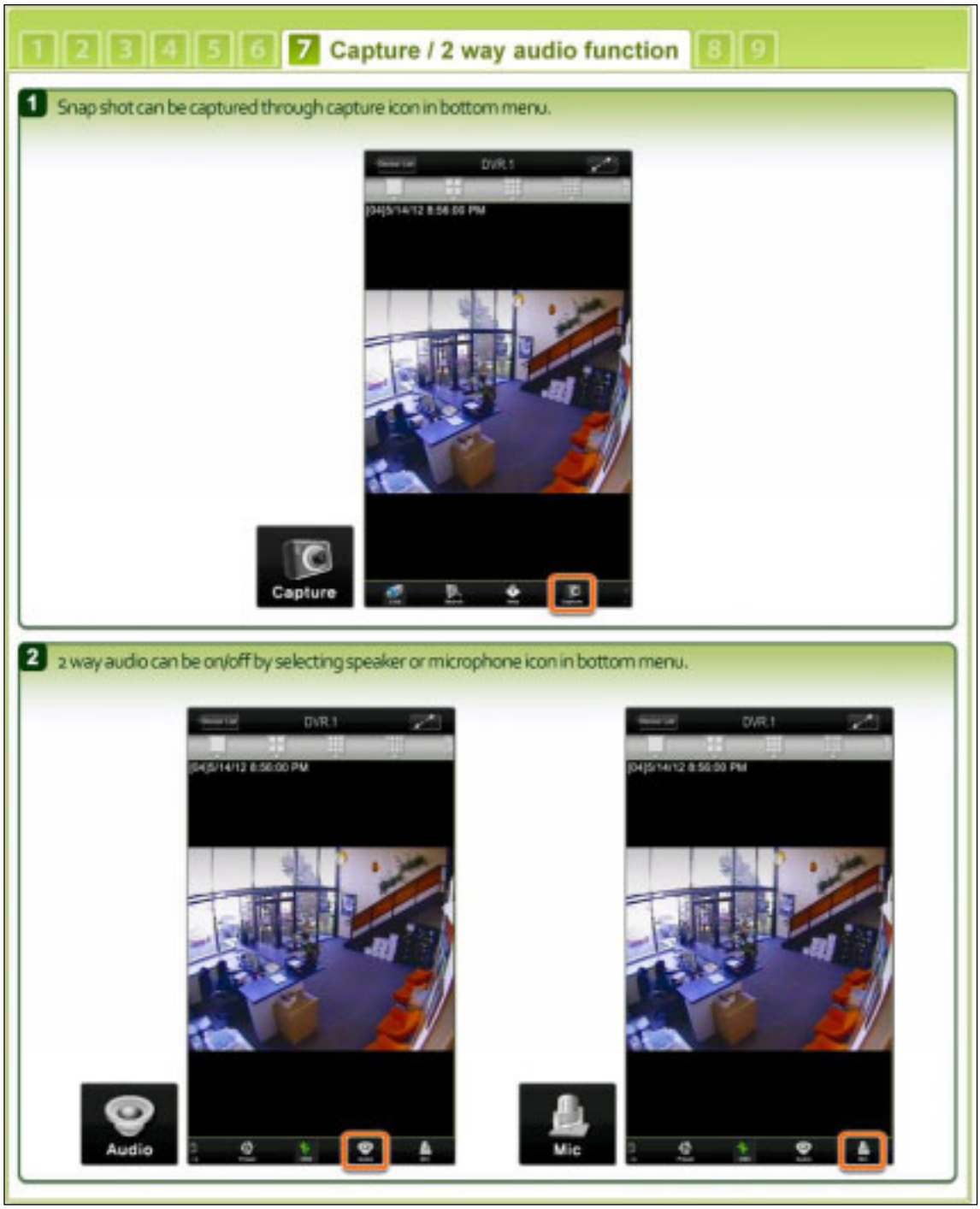
1 A single channel PTZ is simply controlled by using touch screen. First, PTZ control is available when selected channel is set for PTZ camera and PTZ control is available in full screen mode. PTZ camera can be moved into desired position by pressing directional arrow icons. Zoom In and Out can be controlled by "+" icon and "-" icon in center. In order to move the PTZ camera into desired position by Preset, user can selected pre-saved preset no in Preset Tab menu.

Pan/Tilt



Zoom In/Zoom Out

Preset


1 2 3 4 5 6 7 Capture / 2 way audio function 8 9
1 Snap shot can be captured through capture icon in bottom menu.
DVR 1
Capture
2 2 way audio can be on/off by selecting speaker or microphone icon in bottom menu.
DVR 1
Audio
DVR 1
Mic

1 2 3 4 5 6 7 **8 Display Camera Information** 9

1 OSD can be on / off and it displays camera title & time & date information.

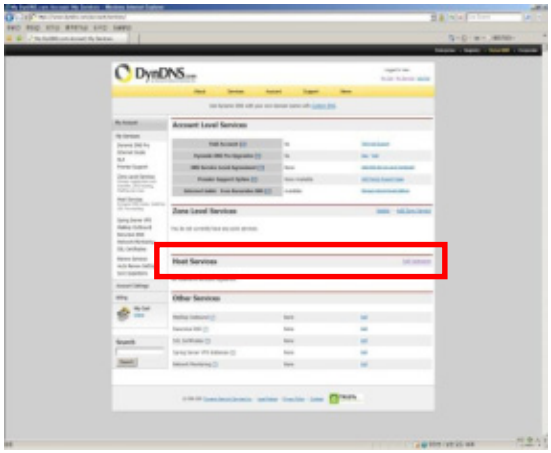
1 2 3 4 5 6 7 8 9 Help
1 Help menu can be selected in bottom incon menu.
DVR 1
AVS16
4. Click on the options button in your smart phone or tablet and click on 'Save' to add the new device to your Device list, or 'Close' to cancel all changes.
How to edit a site:
1. Make sure you are in the 'Device List' page.
2. Press the 'Edit' button on the top right corner of the Device List window.
3. All devices on your list will be open to delete or edit their information.
2 Custom Fit(Strech the video to fit for window) / Full Screen Mode.
DVR 1
Wide
DVR 1

APPENDIX : DYNDNS SITE REGISTRATION

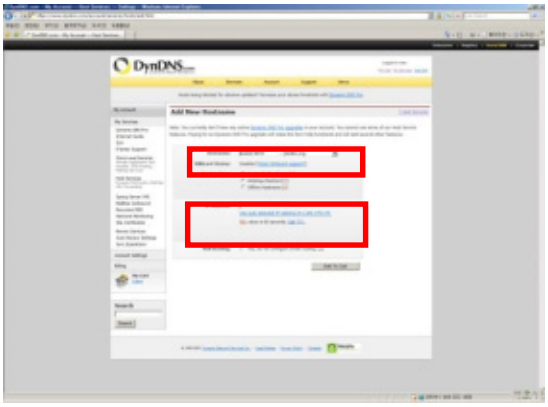
1) Go to www.dyndns.com

2) Log in to the Site after registration

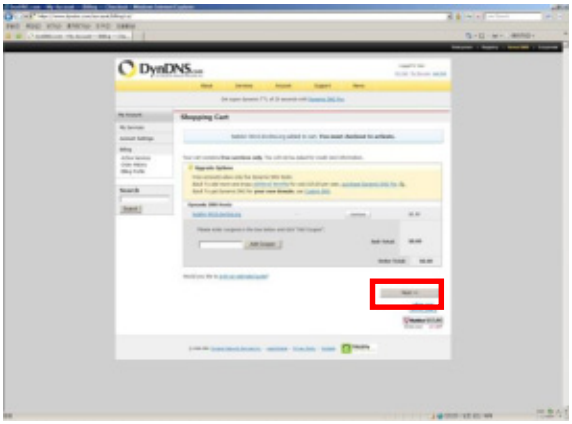
3) Click " Add Hostname" button on "Host Services"



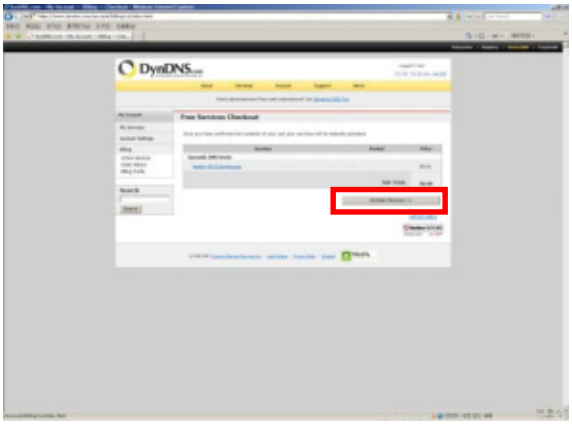
4) Put in the IP address and Host name on the blank



5) Click “NEXT” Button

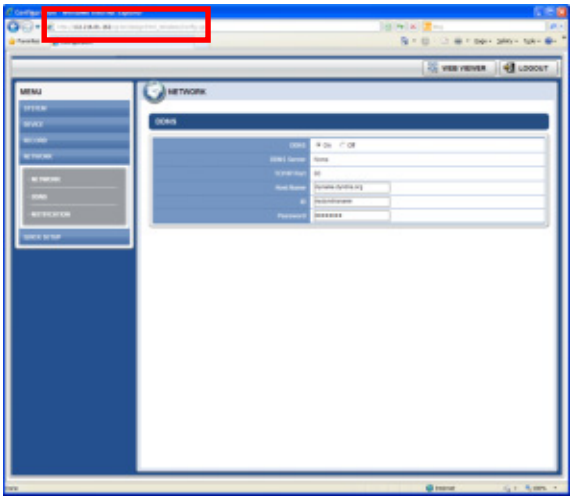


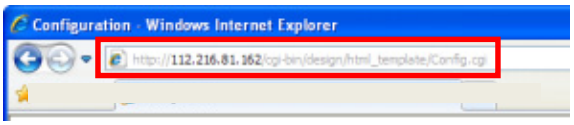
6) Click “Activate Services” button



7) Confirm the domain name and IP address

8) Check the connection status





- **Tip**

1. It may take a little time to be completely done for DNS deployment after changed sub domain.
2. Please recheck DVR's IP address registered in the My Service Menu, if you can't access DVR using dyndns.
3. If you are using dyndns to change the IP address for the DVR to the update request, dyndns update by the circumstances that may be late.
4. Dyndns domain is registered by the policy. If the update occurs frequently, it may be blocking.
   Please recheck DVR's service status registered in the My Service Menu, if you don't access dyndns.
5. If you don't access dyndns for a long time, domain will be deleted automatically.
   To prevent this, please access it regularly, or you will have to pay for it again.
   For more information, please contact to dyndns directly

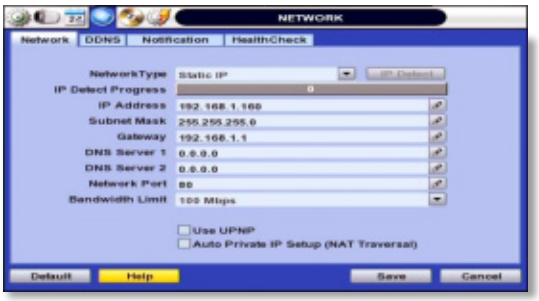
9 APPENDIX : NETWORK SETUP FOR EXTERNAL USAGE

Please note: The following information are general guidelines. These may vary by networkand router specifications. Contact your installer or ISP for additional information.

If you are not connecting to your DVR from within the same network, you will have to perform port forwarding on your router to be able to access the DVR externally, via the internet.

1. In the [Network] menu set “Network Type” to [Dynamic IP] and click [IP DETECT]. The system will automatically detect the correct settings for the network where the DVR is installed.

2. Once the system generates all the information based on your network requirements, change the Network Type to Static and save all the changes as static.
   A static IP address will not be changed by the network. Contact your Internet Service Provider or Network Administrator for additional information and to obtain a static IP address from them.



3. Some internet service providers block port 80 in their customer's routers. It is recommended to change the web port number to 81 or 82.

4. Access your router by entering its external IP address in your web browser. This information can be found by running an ipconfig command on your computer's Command Prompt. The router's external IP address is the GATEWAY address.

5. Check the DHCP settings in your router and setup the DVR for external connections by performing port forwarding. It is highly recommended that you contact your Network Administrator for more information and proper handeling of your router. Port forwarding will tell the router that all data received via those specific ports, will be redirected to the DVR. For the DVR, you will need to port forward the two following ports:

   a. Network Port:80 (Default)

6. Visit www.portforward.com for additional information on performing port forwarding on specific router models.

7. Visit www.yougetsignal.com to test whether the ports have been properly opened. Please allow up to five (5) minutes for the router to update.

8. Once the router settings have been configured correctly, open an internet explorer page and enter your router's external IP address:DVR's port number (Example: 72.243.193.215:81).

You can also connect to the DVR using Google Chrome by installing the ‘IE Tab’ add-on

10 APPENDIX : SPECIFICATION

Model		4CH	8CH	16CH
Front Image (1 HDD Case)				
Compression		H.264		
HDD Interface		1 x SATA		2 x SATA
Operation System		Embedded Linux		
Video	Input	4BNC	8BNC	16BNC
	Output	1 x HD Output (1080p Live Display)		
Video Mode		NTSC/PAL auto detection		
Display Speed(NTSC/PAL)		120fps@1080P	240fps@1080P	480fps@1080P
Screen Split		1, 4	1, 4, 9	1, 4, 9, 16
Video	Monitor	1 x HD Output (1080p Live Display)		
Recording Speed (NTSC/PAL)	Main Stream	Max.60fps@1080P / Max.50fps@1080P	Max.120fps@1080P / Max.100fps@1080P	Max.240fps@1080P / Max.200fps@1080P
Recording Resolution		NTSC: 480x240, 960x240, 960x480 / 720P, 1080P PAL: 480x288, 960x288, 960x576 / 720P, 1080P		
Recording Modes		Time-Lapse, Event, Pre-Event, Post-Event, Instan(Panic) Record		
Play back & Search	Speed	x1/32, x1/16, x1/8, x1/4, x1/2, x1, x2, x4, x8, x16, x32		
	Function	1, 4 CH (Multi-Channel Playback)	1, 4, 9 (Multi-Channel Playback)	1, 4, 9, 16 (Multi-Channel Playback)
		Date/Time, Record Table, Calendar, Event preview, Bookmark, System log		
Audio Input / Output		In: 1 x RCA Jack / Out: 1 x RCA Jack		
Alarm Input / Relay Output		4 x In / 1 x Relay Out		
PTZ Control and Port		Virtual Joy-Stick Control on screen(by mouse)		
		RS 485 Port 1ea (PTZ, Keyboard Controller)	RS 485 Port 2ea (PTZ, Keyboard Controller)	
LAN		1 x 10/100/1000Mbps Gigabit Ethernet		
Network Transmission		Max.60fps@1080P	Max.120fps@1080P	Max.240fps@1080P
		Video Dual-Stream (Local Recording & Network Transmission)		
		Live monitoring, Remote Playback and File Backup (Triplex-on-Remote)		
		Remote & E-Mail Notification with AVI, Remote System Reboot by Client(CMS)		
Mobile S/W		Android, iPhone, Kindlefire		
Remote PTZ Control		Pan/Tilt/Zoom/Focus/Iris		

Model		4CH	8CH	16CH
Remote Management Backup Device	S/W	Central Management System		
	Web(IE)	Live monitoring, Playback & System Configuration		
	Internal	N/A		
	External	Local backup by USB memory stick (2ea) , Network backup by CMS support		
Advanced Function		Multi-Language, System Upgrade by USB & Network, Help menu on Major Function, Call Monitor Configuration, Import & Export & Instant File Backup Warning Alarm for System Over-Temperature		
System Operation		Mouse		
Power		12V x 2A D/C	12V x 3A D/C	12V x 5A D/C
Temperature & Humidity	Storage	-20 ~ 60℃ / 20 ~ 95%RH		
	Operating	5 ~ 40℃. 20 ~ 80%RH		
Cerification		KC, CE, FCC		
Dimension(W x H x D)		280 x 48 x 245		360 x 66 x 356

Model		8CH	16CH
Front Image (Loop out)			
Compression		H.264	
HDD Interface		2 x SATA	
Operation System		Embedded Linux	
Video	Input	8BNC	16BNC
	Looping	1 X Loop out port	2 X Loop out port
Video Mode		NTSC/PAL auto detection	
Display Speed		240fps@1080P	480fps@1080P
Screen Split		1, 4, 9	1, 4, 9, 16
Video	Monitor	1 x HD Output (1080p Live Display)	
Recording Speed (NTSC/PAL)	Main Stream	Max.120fps@1080P / Max.100fps@1080P	Max.240fps@1080P / Max.200fps@1080P
Recording Resolution		NTSC: 480x240, 960x240, 960x480 / 720P, 1080P PAL: 480x288, 960x288, 960x576 / 720P, 1080P	
Recording Modes		Time-Lapse, Event, Pre-Event, Post-Event, Instan(Panic) Record	
Play back & Search	Speed	x1/32, x1/16, x1/8, x1/4, x1/2, x1, x2, x4, x8, x16, x32	
	Function	1, 4, 9 (Multi-Channel Playback)	1, 4, 9, 16 (Multi-Channel Playback)
		Date/Time, Record Table, Calendar, Event preview, Bookmark, System log	
Audio Input / Output		In: 1 x RCA Jack / Out: 1 x RCA Jack	
Alarm Input / Relay Output		4 x In / 1 x Relay Out	
PTZ Control and Port		Virtual Joy-Stick Control on screen(by mouse)	
		RS 485 Port 2ea (PTZ, Keyboard Controller)	
LAN		1 x 10/100/1000Mbps Gigabit Ethernet	
Network Transmission		Max.120fps@1080P	Max.240fps@1080P
		Video Dual-Stream (Local Recording & Network Transmission)	
		Live monitoring, Remote Playback and File Backup (Triplex-on-Remote)	
		Remote & E-Mail Notification with AVI, Remote System Reboot by Client(CMS)	
Mobile S/W		Android, iPhone, Kindlefire	
Remote PTZ Control		Pan/Tilt/Zoom/Focus/Iris	

Model		8CH	16CH
Remote Management Backup Device	S/W	Central Monitoring Software	
	Web(IE)	Live monitoring, Playback & System Configuration	
	Internal	N/A	
	External	Local backup by USB memory stick (2ea) , Network backup by CMS support	
Advanced Function		Multi-Language, System Upgrade by USB & Network, Help menu on Major Function, Import & Export & Instant File Backup Warning Alarm for System Over-Temperature	
System Operation		Mouse	
Power		12V x 5A D/C	
Temperature & Humidity	Storage	-20 ~ 60℃ / 20 ~ 95%RH	
	Operating	5 ~ 40℃. 20 ~ 80%RH	
Cerification		KC, CE, FCC	
Dimension(W x H x D)		360 x 66 x 356	

NOTE The specifications are subject to change without notice